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The ILLINOIS Medical Journal

VOL. 83 NO. 4

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In This Issue

Symposium on Industrial Health

Preliminary Program

for the

ANNUAL MEETING ILLINOIS STATE MEDICAL SOCIETY

PALMER HOUSE, CHICAGO, MAY 18, 19, 20, 1943

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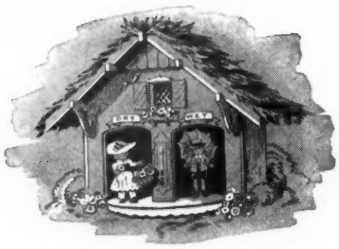
OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



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April, 1943
VOL. 83, NO. 4

The Illinois Medical Journal

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Philip H. Kreuscher, Harry Culver.

Editorials

THE 1943 ANNUAL MEETING

The 1943 annual meeting of the Illinois State Medical Society will be held at the Palmer House, Chicago, on May 18, 19, and 20, 1943. The meeting is designated as a war meeting, and invitations have been extended to the medical personnel of the various Army and Navy headquarters in the Chicago area. Medical men in uniform will be registered as guests, and will be permitted to participate in the deliberations. Many subjects to be discussed at the meeting will pertain to war medicine.

The meeting will begin Tuesday morning with special meetings scheduled representing several branches of medicine. The opening meeting will begin at 1:00 P. M., Tuesday, May 18, and will be followed by meetings of the individual sections. Tuesday evening will be given over to dinner meetings, such as the annual Secretaries' Conference, Veterans Dinner, and dinner meetings of some of the sections. At 9:00 P. M., the Oration in Medicine will be delivered by an outstanding speaker, to be announced in the May Illinois Medical Journal.

On Wednesday morning there will be a joint meeting of all sections with a program of general interest. At 11:00 A. M. the Oration in Surgery will be given before this group.

Wednesday afternoon will be devoted to the presentation of meetings of each of the scientific sections, and on Wednesday evening the annual President's Dinner will be held, at which time a prominent speaker will give a non-medical talk, which will be of interest to all present. Suitable entertainment for the group will also be presented, following the dinner.

On Thursday morning there will be another joint session, with all sections participating, and subjects dealing principally with the war effort will be discussed.

The meetings of the House of Delegates will be held on Tuesday afternoon, and on Thursday morning. Complete information concerning these meetings will be sent to all delegates well in advance of the opening session.

There will be the usual fine technical exhibit in the large Palmer House exhibit hall. Scientific exhibits will likewise be an important feature of the annual meeting, and they will be displayed on the fourth floor of the Palmer House.

Owing to the fact that there will be some difficulty in reserving rooms in the Palmer House and other loop hotels, all members and guests intending to be present at this annual meeting should make hotel reservations as early as possible. Room reservations should be made be writing the hotels, rather than to members of the committee on arrangements.

The official program with complete information relative to the programs and other essential information will be published in the May Illinois Medical Journal.

MAKE YOUR HOTEL RESERVATIONS

NOW AND PLAN TO ATTEND THE 1943 ANNUAL MEETING.

THE CONSERVATION OF MANPOWER

The subject of manpower is one of the many receiving more consideration at this time than ever before in the history of this country. It is necessary for the best results in time of war that everyone able to do so should endeavor in every way possible to make his contribution to the war effort. With so many physicians being called into the armed forces to care for the men in service, it has been necessary that warnings be issued whenever possible, for the conservation of medical manpower, and the limiting of the abuse on the part of many, in calling the physician unnecessarily.

In many communities notices have been published in papers telling the public to use more caution than ever before in demanding the time and attention of their physician when not actually necessary. It has frequenty been stated that perhaps the majority of night calls could have been made in the daytime, but the family has neglected the placing of the call to the physician until night time. In some communities one or more physicians have been willing to spend the night in the hospital, to be subject to calls within the institution and also be ready to make essential night visits in the home, to give the other physicians an opportunity to get the desired rest.

It has been generally decided that for the duration of the war, the number of residents in hospitals should be reduced at least 50% from the number previously used, and that 25% of these should be women physicians, and 25% should be selected from the list of younger physicians who have been found physically disqualified for military service. It has been recommended that hospitals can frequently combine two or more services, and thus reduce the normal number of residencies within the institution.

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State Society will pay no bills for legal services except those contracted by the Committee. Notify the Chairman at once. Do not employ attorneys.

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Subscription price of this JOURNAL to persons not members of the Illinois State Medical Society is $3.00 per year, in advance, postage prepaid, for the United States, Cuba, Porto Rico, Philippine Islands, Hawaiian Islands and Mexico. $4.00 per year for all foreign countries included in the postal union. Canada, $3.50. Single current copies, 50 cents.

With the reduction of speed on the highways and the rationing of gasoline, there has been a noticeable reduction in the former high number of highway accidents. These accidents in recent years have materially reduced the number of men capable of carrying on their daily duties on the farm, in the office, industries, and mercantile establishments. It has been known for a long time that an unusually high percentage of accidents occur in the home, and even the highly essential bath tub has added materially to the many casualities.

Recent releases have called attention to the large number of accidents which have occurred on the farm, these having increased substantially in recent years, with the increase in the power machines which have been added to the farmer's armamentarium. Each year in the corn belt, physicians have seen many accidents result from the use of the corn picker, and thousands of arms and legs have been sacrificed as a result of the use of this modern appliance, in addition to the loss of many lives from this source.

Many accidents have been caused by the combine, mower, tractors, and many other similar farming accessories. Futhermore, the injuries received from the handling of live-stock have added materially to the large number of farm accidents reported in recent years.

During the hunting season each year, many have been crippled or killed from gunshot injuries. Also a considerable number of lives have been lost from duck hunting expeditions, drowning taking a considerable toll of lives in addition to that from guns.

The medical profession today has assumed more responsibilities than ever before in the effort to increase the manpower through the rehabilitation process following serious injury. With the use of blood and blood substitutes, the sulfonamides, the newer treatment of fractures, soft tissue injuries, and improved hospitalization facilities available in nearly every community, many people have been restored to good health and are permitted to again participate in the war effort.

Women in industry are a vital factor, and modern industrial medicine must necessarily give consideration to the many troubles which are peculiar to women. In nearly every state today, there is a well organized group of industrial physicians which endeavors in every way possible to aid in the procuring of adequate medical and surgical services to the industrial workers.

The Illinois State Medical Society has an official committee on industrial health, and each county medical society, especially in those counties which have industries with many workers, has named a similar committee to confer with the state committee, and receive the releases which are going out regularly for their information. Medical Societies are scheduling programs along industrial lines, at which time physicians are appearing to discuss many of the modern problems relating to industrial health and care of workers.

Special teams have been arranged to go out to various communities requesting this type of meeting to discuss many of these problems. Among the most popular of these subjects are the use of blood and blood substitutes (especially plasma), the recognition and treatment of shock, the minimum requirements in care of fractures, treatment of soft tissue injuries, resuscitation, and many other similar subjects which are of interest to all medical men especially at this time.

With the many advances made in medicine in recent years, the medical care of workers in industry, on the farm, and elsewhere, is better than that which was available during the last war, and with the rehabilitation programs now under way, there is an organized effort to aid in every way possible in the conservation of man-power.

INVALID DIETS AND FOOD RATIONING

Of interest to all who are concerned with diets for invalids is Ration Order 13, issued by the Office of Price Administration under date of February 9, 1943. This order covers all canned, dried, and frozen fruits and vegetables. Article II, Section 2.5 of the order reads as follows:

"Consumers who need more processed foods because of illness may apply for more points. (a) Any consumer whose health requires that he have more processed foods than he can get with War Ration Book Two, may apply for additional points. The application must be

made, on OPA Form R-315, by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the board for the place where the consumer lives. He must submit with his application a written statement of a licensed or registered physician or surgeon, showing why he must have more processed foods, the amounts and types he needs during the next two months, and why he cannot use unrationed foods instead.

(b) If the board finds that his health depends upon his getting more processed foods, and that he cannot use or cannot get unrationed foods, it shall issue to him one or more certificates for the number of points necessary to get the additional processed foods he needs during the next two months."

The application form referred to above, OPA Form R-315, is apt to be somewhat confusing to patients. It is titled "Sugar Special Purpose Application" and was developed primarily to meet the need for home canning. It is being used temporarily, until a more adequate form can be gotten out.

It is anticipated that the procedure indicated in Section 2.5 above may be changed somewhat in the future, in which case due notice will be provided.

Information Please

PEOPLE THINK the government knows everything and each year they write thousands of inquiries. Here are some of the more interesting ones.

From Long Island: "Please send me information what you intend to do with the dust bowl area. Are you going to try to fix it up or sell it. I will be glad to get all the information you can give me."

From Massachusetts: "Could you give me the address of some turkey farm? I need some nice long feathers from the turkey's tail. They should be long and fairly straight. I use them to clean my oboe."

From Ohio: "Please send me your bulletin on bedbugs. Hope you send it in an envelope, but send it anyway."

From Texas: "I shall appreciate any literature on the care and rearing of babies and how to receive the same in large quantities."

—*Washington is Like That* by W. M. KIPLINGER. Harper & Brothers, New York.

POINTS OUT THERE IS NO KNOWN METHOD OF CORRECTING COLOR BLINDNESS

Despite unsubstantiated claims to the contrary, methods of correcting color blindness are unknown, *The Journal of the American Medical Association* for March 20 warns. *The Journal* says:

"Newspaper publicity given recently to an alleged cure for color blindness seems to emanate from one J. H. Lepper, optometrist, of Mason City, Iowa. In reply to inquiries concerning his procedure for correcting color blindness, a form letter is sent in which it is stated 'YES, YOUR CASE OF COLOR BLINDNESS CAN BE CORRECTED, IF WE DO NOT, IT WILL BE THE FIRST CASE.' The statement also suggests that cases take from two to three weeks for correction. If the patient comes to Mason City, $5 a day is charged. If the prospect finds it impossible to come to Mason City, Lepper says he can send the same equipment, involving two pairs of special colored glasses and one color vision test book, for a total of $25. A lamp with a reflector and a 69 watt bulb and a flasher if obtainable are also required for home treatment. The form letter is accompanied by a list of testimonials, none of them signed by the writer's full name. Color blindness is a congenital defect. Despite unsubstantiated claims to the contrary, methods of correcting this condition are unknown. Many letters sent to the headquarters of the American Medical Association indicate that men who have had difficulty in gaining entrance to the navy or the air force have been given false hopes by his wholly unwarranted publicity for an unestablished procedure."

TAKE A SLOGAN

To "get there fustest with the mostest men" has had a great revival in the news of the present world melee. "Too little — too late" probably inspired the Greater Boston United War Fund's "Give enough — soon enough!"

Not a bad phrase for a medical practice, for given enough attention — soon enough, almost any case of illness is easily remedied.

"Give until it hurts" might do for a fund raising job, but never in this world for a doctor. Imagine a physician (or a dentist) using this phrase as a driving force!

— *N. Y. S. J. of M.*

Correspondence

MAY 18, 19, 20
THREE RED LETTER DAYS

May 18th, 19th and 20th bring to Chicago the 103rd Annual Meeting of the Illinois State Medical Society at the Palmer House. *"Red Letter Days"* because this is a War Meeting — a War Program — dedicated to the Army and the Navy and to our Buddies, who want very much to be here with us. Since many of them in the service cannot, we at home WILL!

In spite of many handicaps and hardships, our Government authorized this Meeting, and expects us to attend. It should, therefore, be not only highly instructive, and a real relaxation, but a patriotic duty. Remember when you register, you are registering not only for yourself, but for your Buddy who would give a lot to be along side of you! For many of us outside of Chicago — downstate — it will call for sacrifices, but we will feel fully repaid. We will have profited by the trip and through our experience and we will have the satisfaction of having done our duty. As for the doctors in Chicago, every one will register and attend at least two days — again one for himself and one for his neighbor who wants to but cannot!

Consult your program in the State Journal and select the speakers you want to hear. But come prepared to spend a few hours leisurely inspecting the interesting exhibits and meeting your friends.

Yours for the biggest, most interesting, most instructive, most patriotic Annual Meeting of your State Medical Society.

Robert S. Berghoff, M.D., Chairman of Arrangements.

CANCER CONTROL ADVISORY BOARD

At the regular meeting of the Advisory Board to the Division of Cancer Control of the State Department of Public Health, Doctor Roswell T. Pettit, Ottawa, was elected Chairman of the Board and Doctor Edwin F. Hirsch, Chicago, was re-elected Secretary.

Other members of the Board are Doctors William Cooley, Peoria; Fauntleroy Flinn, Decatur; James S. Templeton, Pinckneyville; John A. Wolfer, Chicago; and James P. Simonds, Chicago.

The cancer control program of the State Department of Public Health is under the direct supervision of Doctor Raymond V. Brokaw, Chief of the Division.

An important feature of the cancer program at present is the support of Tumor Diagnostic services operated under the auspices of the Division of Cancer Control at the Memorial Hospital, Springfield; the Methodist Hospital, Peoria; St. Anthony's Hospital, Rockford; and the Burnham City Hospital, Champaign.

These facilities provide a group consultation service for the general practitioner in the diagnosis of his suspected tumor cases.

AMERICAN COLLEGE OF CHEST PHYSICIANS CANCELS 1943 MEETING

The following resolution was adopted by the Board of Regents of the American College of Chest Physicians at their Mid Winter Meeting at the Palmer House, Chicago, February 14, 1943.

WHEREAS: The American Medical Asso-

ciation has cancelled its annual meeting for the year nineteen hundred and forty-three; and WHEREAS: The American College of Chest Physicians has since its inception held its meetings jointly with the annual meetings of the American Medical Association. BE IT RESOLVED, That the Board of Regents of the American College of Chest Physicians meeting in Executive Session in the City of Chicago on the fourteenth day of February in the year nineteen hundred and forty-three, hereby proposes that the 1943 annual session of the American College of Chest Physicians be cancelled and that the reasons for the cancelling of this meeting are the same as those advanced by the Executive Council of The American Medical Association.

It was recommended by the Board of Regents that wherever feasible, State and District Chapters of the College arrange to meet jointly with their State and District Medical Societies and assist in preparing scientific programs concerning the specialty of diseases of the chest.

SPECIAL WARNING BULLETIN

Subject: Epidemic Kerato-conjunctivitis

Incubation period. Five to ten days.

Clinical Manifestations. The onset may be preceded by a low fever and mild generalized malaise. The local ocular symptoms are merely those of a foreign body or conjunctival irritation. One eye is usually affected first, and in a large percentage of cases the second eye becomes infected within five to eight days. Preauricular and submaxillary glandular involvement with tenderness is common in a high percentage of cases.

Edema of the lids and the conjunctiva, especially the transitional fold, is very frequent. The conjunctiva presents the appearance of a simple purulent conjunctivitis but with little or no formation of pus. Small areas of pseudomembrane are not infrequent and when removed leave either small white dotted points or some bleeding points. The bulbar conjunctiva becomes edematous early. At this stage, there is some lacrimation and photo-phobia, but real pain and blepharo-spasm do not appear until the cornea becomes involved.

The percentage of cases in which corneal involvement occurs varies from 50% to 90%. In six to twelve days after the conjunctivitis appears, the cornea becomes involved by the appearance of discrete gray infiltrates that lie in and immediately under the epithelial layer of the cornea. They may be confined to the periphery of the cornea but in a large percentage of cases involve the pupillary area of the cornea directly. These infiltrates are discrete and seldom become complicated by an erosion of the corneal epithelium with resultant staining with fluorescin. The extent of visual impairment depends upon the number of infiltrates and their location.

Clinical Course: The disease is self-limited. In the majority of instances, the conjunctivitis disappears spontaneously in 14 to 18 days. The corneal complication may disappear in seven days or may last for many months. The longer they persist the greater is the danger of permanent visual impairment.

Laboratory Findings: Scrapings of the conjunctiva show a preponderance of monocytes. Cultures and smears are either negative or show the usual contaminations.

Treatment: There is no specific treatment that has shown a definite influence upon the course of the disease. During the acute stage the eyes should be kept clean with irrigations of boric acid, normal saline, or one to five thousand oxycyanid of mercury. If there is much photophobia, 1 per cent holocaine may be instilled at frequent intervals. Five per cent sulfathiazole ointment has been used, as has 5 per cent solution of sodium sulfathiazole sesquihydrate. For persistent corneal infiltrates, x-ray has seemingly yielded some results.

Period of Infectivity: It is not yet known how long the danger of transmission to others exists. At present for practical purposes a sufferer from Epidemic Kerato-conjunctivitis may be allowed to return to work when the active conjunctivitis has disappeared.

Preventive Measures: At present the only preventive measure known is complete isolation of infected persons. Inasmuch as the disease has been transmitted through medical personnel, the most meticulous asepsis must be insisted upon. Not only must physicians and nurses wash their

hands thoroughly with soap and water after each patient, but also eye droppers, solutions, instruments, etc. must be sterilized to prevent infection of non-contaminated persons. The infected individual must be told of the danger of transmission of this disease to others, not only in the plant, but even in the home surroundings. It is suggested that in industrial plants where Epidemic Kerato-conjunctivitis has made its appearance the following methods of procedure be adopted:

1. In smaller plants with a limited personnel, every individual with a red eye should be stopped at the entrance of the plant and sent direct to the plant physician to determine whether or not Epidemic Kerato- conjunctivitis is present.

   In larger plants where such a procedure is not possible, supervisors and foremen should be instructed in detail to make rounds immediately when a fresh shift starts, and send any individual with a red eye to the medical office.

2. If the cases are to be treated at the medical department of the plant, a separate room should be set aside for such cases and in that room there must be exercised the most scrupulous asepsis even to washing off the arms of the chairs in which the patients sit. Aside from the aseptic and separate care of the recognized cases of the disease, special cleanliness of the hands of the physician in the general clinic should be maintained, with the use of an effective disinfectant between cases, lest the infection be spread by means of undiagnosed cases, especially those suspected of having foreign bodies in the eye.

3. Every case of Epidemic Kerato-conjunctivitis should be excluded from the communal facilities of the plant until the inflammation has subsided to the point where the plant physician considers it no longer transmissible.

4. Explicit instructions should be given to every individual regarding the danger of transmission, and emphasizing the decrease in the war effort as a result of the time lost from Epidemic Kerato-conjunctivitis.

5. The local health authorities should be notified immediately of the existence of individual cases.

This statement has been prepared jointly by the United States Public Health Service and the Committee on Industrial Ophthalmology of the American Medical Association, for distribution to all physicians.

INTERNATIONAL COLLEGE OF SURGEONS TO MEET IN JUNE

The Fourth International Assembly of the International College of Surgeons will be held on June 14, 15 and 16 at the Waldorf Astoria Hotel in New York City, it is announced by Dr. Fred H. Albee, International President. The program which will be devoted to war surgery and rehabilitation will no doubt be followed with great interest throughout the nation and elsewhere not only by those directly connected with medicine, but also by the lay public as well.

Delegations made up of prominent surgeons from the United Nations in addition to those from other countries are expected to attend. The United Nations representatives will give outstanding examples of the progress being made in war surgery and rehabilitation under battle conditions by their respective countries.

Serving on the Publicity Committee with Dr. Bodenheimer are Drs. Max Thorek, Chicago, Ill. and Dr. Edwin A. Griffin, Brooklyn, N. Y.

Dr. Thorek is the International Executive Secretary.

WAR CONFERENCE

The medical, surgical and industrial hygiene experts who are so ably safeguarding the well-being of more than 20 million industrial workers have agreed to pool their knowledge and exchange their experiences regarding the many new and complex problems of today's wartime production. For this purpose their organizations —

The American Association of Industrial Physicians and Surgeons,

The American Industrial Hygiene Association, and

The National Conference of Governmental Hygienists — are combining their annual meet-

ings in a four-day "WAR CONFERENCE" at Rochester, New York, May 24-27, 1943. Among the problems to be discussed from a practical standpoint are:

The mass entry of women into industry;

Older-age employees, with their various associated problems; proper placement and employability considerations of the 4F rejectees;

Rehabilitation and proper employment of those already discharged from the military services because of disabling conditions:

Toxic and other hazards from new substances, new processes, and the use of sustitute materials;

Absenteeism; fatigue; nutrition;

Effects of long hours; double shifts; two-job workers; overtime; increased industrial accident rates;

Advances in the treatment of illnesses and injuries, and many others.

This joint meeting will be a report on the state of the nation, by the men who know, in matters of industrial health. Dr. William A. Sawyer, Medical Director of Eastman Kodak, is General Chairman; Dr. James H. Sterner and Lieut. Comm. J. J. Bloomfield are arranging the programs for the industrial hygienists.

Physicians and surgeons, hygienists, engineers, nurses, executives — all who are interested in the problems of industrial health and their solution — are invited to attend as many of the sessions as they can arrange for; no registration fee is required.

COMRADES IN COURAGE

The familiar Easter Seal with its crippled child dauntlessly facing the wind, as do our sailors symbolized on the horizon, carries the message of comrades in courage. Their gallant spirit in meeting trouble is the inspiration for the progressive program of the Illinois Association for the Crippled, 35 E. Wacker Drive, Chicago.

Their present program for the crippled who have become adults, fits the handicapped persons into suitable jobs. Three skilled placement counselors on the association's staff prove that the degree of usefulness among handicaps on jobs, depends upon the care with which they are placed, and that they are a resource for manpower in our war effort. Also, to the homebound crippled the association sends an occupational therapist who teaches them a craft, then markets their products.

The sale of Easter Seals, March 29 to April 16, supports this far reaching work for crippled children and handicapped adults.

PARKE-DAVIS WINS ARMY-NAVY 'E'

Detroit, already world-famous as democracy's arsenal of war weapons, achieved prominence in new field Friday, February 26th, when 2,700 employees of Parke, Davis & Company received the Army-Navy "E" pennant for excellence in production of materials for saving lives.

Brigadier General John M. Willis, commanding general at Camp Grant, Ill., presented the symbolic "E" pennant, which was received by Dr. A. W. Lescohier, president of the company.

Lieutenant E. B. Williams, senior medical officer of the Detroit Naval Armory, presented the insignia. John Tighe, representing the employees, accepted the insignia, an "E" pin which every employee is entitled to wear. Among the honored guests seated on the platform were Joseph Roberts, oldest male employee who began his service with the company in 1892, and Miss Lillian Paye, oldest female employee whose service with Parke, Davis & Company began in 1896.

"E" flags are flying in each of the company's branches and depots in the United States and "E" pins have been sent to all employees in this country.

The foundation of tuberculosis control is the finding of all cases of tuberculosis. An example has been set by the armed forces. Routine X-ray examination of the chests of apparently healthy people for the purpose of finding the disease, is now the accepted practice at induction centers. Yet inducted men are only a few millions of the population. What about the other millions of men, either too young or too old for service in the armed forces and the forty million women who are serving their country as workers or homemakers?

A chest X-ray should become an accepted practice in civilian life. Physicians should routinely X-ray patients coming for general physical examinations; hospitals should X-ray every patient seeking admittance; labor unions should X-ray their membership; medical departments in industry, especially war industries, should X-ray the chests of applicants for jobs. In fact, every person, young or old, should be X-rayed. W. A. Doppler, Ph. D.

Medical Economics

Edited by R. K. Packard, M.D., Chairman of the Committee on Medical Economics of the Illinois State Medical Society, 826 East 61st Street, Chicago, Illinois.

The National Conference on Planning For War and Post War Medical Services held in New York City, Monday, March 15, 1943, was attended by better than seven hundred men and women representing various Associations in the medical, hospital and pharmaceutical fields. Papers which were presented will appear in the American Medical Association Journal.

Of especial interest was a paper by Thomas T. Mackie, M.D., Lt. Col., Medical Corps and Executive Officer, Tropical and Military Medicine, Army Medical School, Washington, D. C. on "War and The Migration of Tropical Diseases," and offers new problems for consideration before, during and after the war. Another very deserving paper was by Lowell T. Coggeshall, M.D., University of Michigan School of Public Health, Ann Arbor, Michigan, on "Malaria — A World Menace." "Nutritional Diseases as a Post War Problem" by John B. Youmans, M.D., Associate Professor Med. Vanderbilt University School of Medicine, Vanderbilt University Hospital, Nashville, Tennessee, was also of especial interest, not only as a post war problem, but as a present day problem.

At the evening session Nelson A. Rockefeller, Co-ordinator of Inter-American Affairs, Washington, D. C. spoke of the health problems of the Americas. His talk was very interesting because it not only dealt with the health problems of the Americas, but with many other problems and the good neighbor problem. It was evident from his talk that much can be accomplished in the South America countries by carrying on the good neighbor policy, and that this policy would not in the end be a policy that would cost us money but rather one that should develop better understanding and better trade relations between the Americas. If one could read between the lines of Mr. Rockefeller's talk one would feel that our mission in the Americas, in many instances, was to help them to help themselves and that by so doing they would and are capable of working out many of their problems.

Mr. Norman Davis, American Red Cross, Washington, D. C. discussed "The Place of the American Red Cross in Medical Rehabilitation." It was his impression, gained from many years of experience in various countries of the world, that medical rehabilitation and the feeding of the now occupied countries could best be carried out by the Red Cross. The reason he stated was the Red Cross had had the experience, trained personnel and were familiar with the various peoples, their customs and their methods of approach. He again emphasized that our contribution should be to help these people to help themselves and to allow them to work out their own problems in their way. Again, if I can interpret his talk correctly I would assume that he feels that our stay in the European fields as far as rehabilitation should not be too long.

Morris Fishbein, M.D., Editor of the Journal of the American Medical Association, talked on "American Medicine's Contribution to the Post War World." Dr. Fishbein reviewed American medicine's contribution up to the present time, and its contribution to the war; and the contribution it could make and would make to the post war world. It was a brilliant exhibition

of American medicine and a strong plea for the preservation of American medicine largely in its present form and under the control of American medicine. He also discussed the Beveridge Plan and the plan proposed by The National Research Council for the United States.

On a whole the meeting was very instructive and brought together various groups interested in all of the problems, and I believed accomplished a great deal in coordinating the efforts of those interested.

One again feels that in the final analysis that the American Medical Association must lead the way in our present and post war problems relating to medical care and medical rehabilitation.

R. K. Packard, M.D.
Chairman
Committee on Medical Economics.

WRITER IN HYGEIA GIVES ADVICE ON MEETING THE MEAT SHORTAGE

Declares Care In Selection And Preparation And Use Of Substitutes Should Prevent Any Loss Of Necessary Proteins

Even in the face of meat shortages, a moderate amount of thought to the addition of other protein foods as a substitute for diminishing quantities of meat, plus careful attention in the selection and preparation of the meat which is obtainable, should suffice to prevent the average American family from suffering any loss of necessary proteins, Doris McCray, Cedar Rapids, Iowa, declares in *Hygeia, The Health Magazine* for April. In addition to supplying proteins, meats are also a valuable source of minerals, thiamine (vitamin B_1), niacin and riboflavin (vitamins B_2 and G). When meat is absent from the diet, the defiiciency may be made up by the addition of other foods rich in vitamins and minerals, Mrs. McCray states.

"While meat, and chiefly pork, is a good source of vitamin B_1, a loss of B_1 resulting from diminishing amounts of meat in the diet may be made up by means of an increased intake of whole wheat bread, enriched bread or cereals and milk," she observes. "Similarly, losses of riboflavin and niacin may be adjusted by the addition of foods other than meats, although it should be emphasized that in every area where market conditions permit, the inclusion of at least one serving of meat a day per person should be preserved in the interests of best nutritional results.

"Generally speaking, American habits of choosing, buying, preparing and serving meats have been wasteful of both food value and money. Americans in the main have scorned the animal organs and the cheaper cuts of muscle meat, tasteful and nutritious though these may be made. Many people habitually spurn fat meats. On the other hand, we rush to buy the cuts which include a large portion of bone and gristle, which represent waste, and we overcook most of our meats. . . .

"We should start at once to use hearts, livers, kidneys, brains, tongues, sweetbreads and meats high in fat to a greater extent than we have ever done before. We must protect against waste of the meats we buy, by prompt and adequate refrigeration of stored meats; we must protect against shrinkage by covering the exposed surfaces of meats stored in the refrigerator and by preparing them promptly — within a few hours, if possible, after purchase. . . .

"With the important exception of pork, which must be thoroughly cooked for safety, most fresh meats can be served rarer than they generally are with advantages of taste as well as nutrition. . . .

"It should be pointed out that spaghetti, rice, bread crumbs and cereal, often used to extend the number of servings of meat, provide much less protein of lower biologic value than the meat itself, although they have some practical use. It should also be noted that 'ersatz' dishes of beans, peas, lentils and the like . . . are foods having a lower biologic value than meat itself. They are sometimes referred to as meat substitutes, and they are useful, but one should make certain that milk, eggs and cheese are included in the menu to furnish biologic values similar to meat, chicken and fish."

★ BUY WAR BONDS ★

Medicine's Role in the War Effort

ARMY'S 1943 RECRUITING PROGRAM WILL REQUIRE 6,900 PHYSICIANS

Outline Of Procedure Reveals None Will Be Commissioned Until Found Available By Procurement And Assignment Service

The 1943 recruiting program of the Surgeon General of the Army calls for the commissioning of 6,900 physicians and approximately 3,000 hospital interns and residents, it is reported in *The Journal of the American Medical Association* for March 13 in an outline of the new procedure of processing physicians, dentists and veterinarians for the Army. The program also calls for the commissioning of 4,800 dentists and 900 veterinarians.

Physicians will be procured from the following twenty states and the District of Columbia: California, Colorado, Connecticut, Illinois, Iowa, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont and Wisconsin.

The following states have already contributed more physicians to the armed forces than the sum of their 1942 and 1943 quotas and will not be called on to furnish any more physicians, except interns and residents and except special cases for specific position vacancies, during 1943: Alabama, Arizona, Delaware, Georgia, Idaho, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, Tennessee, Texas, West Virginia and Wyoming.

It is stated that at present there will be no procurement of physicians, except interns and residents and in special cases for specific position vacancies, in those states not listed above. There will be no procurement of dentists, except special cases for specific position vacancies, in the following sixteen states: Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.

At the present time there are no restrictions on the recruiting of veterinarians.

In the instructions issued by the Army it is pointed out that the Surgeon General has discontinued all medical officer recruiting boards and that under the new procurement program no physician, dentist or veterinarian will be commissioned in the armed forces of the United States until he has been declared "available" by the Procurement and Assignment Service of the War Manpower Commission.

In each state the Procurement and Assignment Service has set up three state chairmen: medical, dental and veterinary. Each of these prepares a monthly quota list of physicians, dentists and veterinarians who are apparently suitable and who are available, for commissioning in the Army of the United States. This list is submitted to the central office of the Procurement and Assignment Service which sends a communication inviting such individuals to apply for service with the armed forces. On the reply card enclosed with the invitation the individual states his preference for the Army, Navy or Medical Department of the Air Forces. These reply cards are sent by the potential applicants to the state chairmen of the Procure-

ment and Assignment Service who in turn submit lists of such potential applicants to the Officer Procurement Service of the Army.

On receipt of such lists the officer procurement district office contacts the potential applicant and arranges for an interview regarding a commission.

Applicants will be requested by the officer procurement district office to complete all papers and take all steps required of them within fourteen days of the date of such request. If this is not complied with, a report thereon will be transmitted by the officer procurement district office to the state chairman of the Procurement and Assignment Service.

The decision as to the grade and appointment to be recommended for each candidate rests with the Surgeon General, not with the Officer Procurement Service.

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THE TREATMENT OF BURNS

Circular Letter No. 15 of the Office of the Surgeon General is concerned with the treatment of burns. It was issued on January 11 to all medical officers of the United States Army. The suggestions which follow are therefore recommended as routine in the army medical service:

1. *General.* — Burns, as discussed in this paragraph, include all cases with damage of the skin and underlying tissues due to heat, chemicals or electricity.

2. *Fundamentals of Treatment.* — (*a*) The prevention and control of shock is the primary consideration in the management of every burn.

(*b*) Proper prophylactic measures against pyogenic infection, tetanus and gas gangrene should be taken. Satisfactory end results, that is, minimal scar formation, largely depend on the avoidance of pyogenic infection; the moist surfaces of burns provide ideal conditions for bacterial growth, and it is therefore of paramount importance to employ, if possible, strict aseptic technic in operating on and dressing burns.

(*c*) Measures should be taken to relieve pain.

3. *Treatment.* — (*a*) General: (1) Proper steps for the prevention or treatment of shock should be instituted. In the presence of extensive burns quantities of plasma up to 12 units may be required during the first twenty-four hours. If available, concentrated normal human serum albumin in appropriate amounts may be used likewise. Transfusion of fresh whole blood is often needed to combat the rapidly developing severe anemia which follows extensive burns; when anemia exists, whole blood transfusion is particularly indicated as a preliminary to skin grafting. Parenteral fluid replacement other than that attained by means of plasma or whole blood transfusion should be accomplished by means of 5 per cent dextrose in sterile distilled water. The intravenous administration of sodium chloride solution should be reserved for those burn cases in which mineral depletion is pronounced, as when great loss of electrolytes occurs as a result of persistent vomiting.

(2) In all cases of moderate to severe burns prophylactic chemotherapy should be administered. Sulfadiazine is the drug of choice (sulfanilamide may be substituted) with an initial dose of 4 Gm. (60 grains). Subsequent doses of sulfadiazine should be given only under the direction of a medical officer. It should be kept in mind that, although sulfonamide therapy may serve to prevent infection, great care must be exercised in employing such therapy in burn cases. The extensive fluid loss and possible kidney damage so common in burn cases increase the danger of renal complications from sulfonamide therapy. Maintenance doses of sulfadiazine should be given in 0.5 Gm. (7½ grain) doses every four hours until such time as adequate kidney function can be demonstrated, under which circumstance the dosage may be increased to 1 Gm. (15 grains) every four hours.

(3) Prophylaxis against tetanus is indicated for all patients with second or third degree burns.

(4) A prophylactic dose of gas bacillus antitoxin may be given at the discretion of the medical officer.

(5) Pain should be relieved by adequate doses of morphine. Pain resulting from an extensive burn can ordinarily be relieved by a dose of ½ grain of morphine. In the presence of pronounced anoxia large doses of morphine are dangerous, and under such circumstances the dose should not exceed ¼ grain.

(*b*) First Aid or Emergency Treatment of the Burned Area:

(1) The burned surface should be covered with a liberal amount of boric acid ointment or, if this is not available, with petrolatum. The burn should then be covered with strips of a sterile fine mesh gauze (44 mesh gauze bandage is satisfactory). Over this should be added a smooth thick layer of sterile gauze dressing (large or small first aid dressings are especially suitable for this purpose). Finally, a gauze or muslin bandage should be firmly applied over the dressings.

(2) Contamination of burned surfaces by organisms from the nose and throat is responsible for most of the more serious infections which subsequently develop. Therefore, to minimize contamination from this source, masking should be practiced by the surgeon and assistants. If masks are not available, mouths should be kept closed.

(3) The prompt administration of plasma, when feasible, constitutes an important element in the emergency treatment of burns.

(*c*) Definitive Treatment of the Burned Area: The burned area should be treated as follows, standard operating room technic, if possible, being employed, with the patient, as well as all attendants, fully masked.

(1) Ether, benzene, lard or other detergents should be used to remove grease, if present. The burned area and then, separately, the surrounding skin are to be carefully cleansed, using neutral soap and water; green soap should not be used. Avoid the use of brushes in the cleansing of the burn.

(2) All blisters and loose shreds of epidermis are carefully removed, and this material is saved for bacteriologic study, if feasible. Skin that gives evidence of irreparable damage through its full thickness should be excised (evidence of irreparable damage to deeper layers of skin may not be apparent for several days, and excision in such cases should be done as a secondary procedure). The resulting wound should be handled like any other open surgical wound, primary grafting of skin being carried out if conditions permit. For painful surgical procedures or dressings, general anesthesia, preferably obtained by intravenous injection, should be employed.

(3) Burns of surfaces of any portion of the body may be treated with boric acid ointment. After thorough surgical cleansing, the burned area should be covered with a generous application of boric acid ointment. Strips of a fine mesh sterile gauze (44 mesh gauze bandage is satisfactory) should be applied. Over this should be added a smooth, thick layer of sterile dressing; this may consist of gauze, absorbent cotton, cotton waste or cellulose. The dressings should be held in place by an evenly and firmly applied bandage; stockinet or some form of elastic bandage is more effective than the ordinary roller bandage. The dressing should not be disturbed for ten days unless complications develop. Firm pressure is especially important in the case of burns of the hands and face. Immobilization of the part by splinting should be effected when feasible.

(4) As an alternate method of definitive treatment, burns of all surfaces except those of the hands, face, genitalia and those involving the circumference of an extremity may be treated with tannic acid and silver nitrate. This method, however, should not be employed in the instance of burns which are grossly contaminated or in which twelve or more hours have elapsed since the receipt of the burn. A freshly prepared 10 per cent aqueous solution of tannic acid is sprayed over the burned area. This is followed immediately by spraying the area with a mixture of equal parts of 10 per cent tannic acid and 10 per cent silver nitrate solutions. This mixture should then be sprayed on the burn every half hour until a satisfactory eschar has been formed. Care should be taken to avoid spraying normal skin about the wound. While drying, the burned area may be kept exposed to the air in a heated cradle. After the eschar is dry, it may be covered by a dry sterile dressing. In the absence of infection, the eschar should be allowed to separate spontaneously. If infection develops, the eschar must be removed from the entire infected area, and the latter should then be treated like any other infected wound, with the employment of appropriate systemic and local therapy.

(5) Isotonic solution of sodium chloride has been found useful in the treatment of burns involving the face, hands and especially fingers,

the flexures and the perineum. It may also be used for the treatment of surface infections following the removal of eschars produced by tannic acid or other agents. Saline solution may be employed in the form of packs or baths.

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TREATMENT OF FRACTURES OF HANDS AND FINGERS CAUSED BY GUNSHOT WOUNDS

V. GUSYNIN

Professor, Chair of Neurosurgery at Lenin Postgraduate Medical College of Kazan and Consultant Military Hospital of Tatar Soviet Republic.

(The following article was received by cable from the Soviet Scientists' Antifascist Committee. — ED., J.A.M.A.)

Fractures of hands and fingers caused by gunshot wounds are frequent war injuries. The correct treatment is fixation and stretching the fingers over a solid cylindric body. This gives the fingers the physiologic half-contracted position. Fixation on a cylindric splint should be centralized on the fractured bone and pressure exerted on the point of fracture. This pressure prevents the bone fragments from moving, so that they heal and remain in position. A fixing bandage is applied with turns of the bandage crossing behind the broken bone at the point of fracture. The bandage passes between the fingers according to the position of the fracture in the direction of the wrist, around which transverse turns are made in both directions. The usual wide absorbent bandage is applied over the sterilized fixing bandage and is changed whenever it becomes saturated. The fixing bandage is not changed unless absolutely essential but is occasionally soaked with iodine. Healthy fingers must be left absolutely free.

I have also proposed the use of a so-called "drum splint," consisting of a wooden cylinder fixed to the split end of a flat splint. The flat splint is placed on the palm side of the forearm and injured fingers are placed around a cylinder. When necessary, the fingers are stretched by elastic bands fastened to the flat splint in a centripetal direction.

Fixation of fingers in a functionally essential position may also be carried out by use of a simple wooden roller.

In field conditions, a bottle 6 or 7 cm. in diameter may be used as a cylindric splint for fingers. The bottle is convenient because it can be used for physiotherapeutic heat treatment, the bottle being filled three or four times a day with warm water.

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PRESBYTERIAN HOSPITAL (CHICAGO) UNIT

Although U. S. Army General Hospital No. 13, the Chicago Presbyterian Hospital Unit, has not been called to active duty as a unit, the administrative officers, the 350 enlisted men and more than two thirds of its nurses are now in army camps and hospitals. The enlisted personnel reported to Camp Grant in December and to Camp Robinson in January, and the following medical officers had already reported for duty at Camp Robinson at the time the February bulletin of the Presbyterian Hospital of the City of Chicago was published. Lieut. Col. Homer K. Nicoll, chief of medical service; Majors Linden J. Wallner, Cyril V. Crane and George C. Turner, Capts. John Tysell and George Pelkey, and Lieuts. A. Deo Klein, D.D.S., and Robert K. Stockton, D.D.S. The commanding officer of the hospital unit is Col. Lyle S. Powell, and the administrative officer in charge of enlisted personnel is Major William T. Willis.

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HOSPITALIZATION OF WOUNDED FROM OVERSEAS

The War Department has promulgated a hospitalization distribution plan for patients returning to the United States from overseas providing for transfer to general hospitals in the interior of officers, army nurses, warrant officers, enlisted men, dietitians, physical therapy aides, members of the WAAC's, contract surgeons and other military personnel who are to be kept under further observation and treatment. While such transfers will not be made when a break in treatment might retard recovery of the patient, the general policy will be to transfer to general hospitals designated for special cases those persons who require special treatment and to send patients who will be discharged for disability or who require prolonged hospitalization to a general hospital in the vicinity of their homes. Such transfers will be made, generally, when there are 25 or more such patients.

LIEUT. RUTH STRAUB AWARDED LEGION OF MERIT

Lieut. Ruth M. Straub of the Army Nurse Corps left her home in Greendale, Wis., in 1939 to be commissioned at Fort Sheridan, Ill., and almost immediately was sent to Manila. On Dec. 26, 1941 Lieutenant Straub was sent along with hundreds of patients in a boat to Corregidor; in February she was ordered to Bataan to work in a field hospital in the jungle, and which all nurses were ordered to evacuate in April. Their small boat made the trip to Corregidor just ahead of the Japanese in May. Lieutenant Straub with eleven other army nurses and one navy nurse then boarded a submarine and were returned to the United States by way of Australia. Lieutenant Straub has now been assigned to the Marana Basic Flying School near Tucson, Ariz., after having been awarded the Legion of Merit at Washington, D. C.

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PHYSICAL THERAPY EQUIPMENT UNDER STRICT CONTROL

Physical therapy equipment was placed under strict control, February 16, by the Director General for Operations with the issuance of an order limiting its production and distribution. The order prohibits the manufacture of all types of physical therapy equipment except surgical diathermy units, electric bakers, fever cabinets and other items which it specifically names. The prohibition, however, does not extend to approved purchase orders for the armed services or for Lend-Lease purposes. All manufacturers of physical therapy equipment must file monthly production and shipping schedules on WPB Form PD-774. While the items specifically named are not placed under production limitations, their sale or delivery is subject to strict control and permissible only on purchase orders for the armed services, Lend-Lease, Board of Economic Warfare, hospitals or medical departments of industrial concerns. Items that cannot be manufactured hereafter may be distributed without restriction until present stocks are exhausted. Examples of items of this kind are vibrators, sun lamps and other heat applicators widely distributed through drugstores and similar retail outlets.

The order affects all distributors or dealers handling those items whose delivery is restricted and about twelve large and twenty-five smaller manufacturers of all types of equipment.

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COURSES TO ORIENT MEDICAL OFFICERS FOR THE AIR FORCES

A course is given at the Army Air Forces Officer Training School in Miami Beach, Fla., for the purpose of orienting medical department officers coming from civilian life and to prepare them for duty for the army air forces. This course is similar to the regular officer training school courses given for the air forces and yet varies in some respects to meet the special needs of medical department personnel. The military training given to the medical department officers is the same as that given by the army air forces officers. The academic training is given in subjects peculiar to the medical department. The medical department student officers have composed about one third of the student body of the officer training school since last November and they have frequently taken the military and academic honors. One of the first ten honor students in class 1942-R was Capt. Carl M. Binnig of Westfield, Mass. The training of the medical officers at the army air forces training school, Miami Beach, is under the supervision of Major Sidney Davidson, M. C.

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NURSING AND THE EMERGENCY MEDICAL SERVICE

The Medical Division of the Office of Civilian Defense is organized along the following functional lines: field casualty service, hospital care, nurse service, blood plasma production and distribution, rescue-first aid, gas defense, sanitary engineering, plant protection and scientific research. The Medical Division recently issued Bulletin No. 6, which summarizes the work of the nursing service and of the emergency medical service and that of volunteers in health, medical care and nursing. This bulletin contains also official information concerning the U. S. Citizens Defense Corps, the U. S. Citizens Service Corps, the Civilian Defense Auxiliary Group, home water supply precautions, protection against injury from war gases, and insignia, identification and dress for nurses.

PSYCHIATRIST AT WAAC CENTER

Dr. Nita M. Arnold, former Chicago psychiatrist, is a contract surgeon with the rank of first lieutenant at the First WAAC Training Center, Fort Des Moines, Iowa. She is under contract with the Surgeon General of the Army. Dr. Arnold was born in Buenos Aires, Argentina, in 1898 and graduated at the Friedrich-Wilhelms-Universität Medizinische Fakultät, Berlin, Prussia, in 1930.

URGES TURNING IN OF ALL QUININE NOT NEEDED TO TREAT MALARIA

A plea for physicians of the United States to turn in to the National Quinine Pool all supplies of quinine is contained in *The Journal of the American Medical Association* for March 13. *The Journal* says:

"Every physician is urged to contribute to the National Quinine Pool all supplies of quinine and other cinchona salts and alkaloids not absolutely essential in his practice for the treatment of malaria. These compounds are needed to maintain an adequate stockpile of antimalarial agents for use in the armed forces. Although synthetic substances such as atabrine are being produced in enormous quantities and are used wherever possible, there are many conditions for which the drug of choice is quinine. Until the war is over little cinchona bark of good quality will be forthcoming. The currently available barks from South America are of a low grade and sufficient only for the manufacture of totaquine, which is satisfactory for domestic use. The provisions of conservation orders M-131 and M-131A essentially restrict the sale, transfer, delivery or use of quinine salts and alkaloids to the treatment of malaria. Quindine is an exception which may be used in the treatment of certain heart conditions. Such restrictions will permit physicians to contribute unused and opened quinine supplies to the National Quinine Pool, care of the American Pharmaceutical Association, 2215 Constitution Avenue, Washington, D. C. Each package received will be tested for identity, pooled and assayed. The less common salts will be processed to quinine sulfate or hydrochloride. The materials needed are bulk cinchona salts and alkaloids, tablets, capsules and pills; quinine, quinidine, cinchonine and cinchonidine. Do not send preparations of quinine or other cinchona derivatives in combination with other medicinal agents; ampules and parenteral medication; liquid preparations or quinine and urea hydrochloride, quinine and urethane, quinine bismuth iodide, elixir iron, quinine and strychnine and similar preparations. The armed forces need all available quinine. Any contribution, no matter how small, will be useful; the need is urgent."

A MAJOR MEDICAL VICTORY

In an editorial pointing out the safety of pooled human plasma (the liquid portion of the blood), *The Journal of the American Medical Association* says in its March 20 issue that "The demonstration of the surpassing value of pooled human plasma in shock has been designated 'a major medical victory.'" *The Journal* points out that 'From a careful analysis of extensive data, [William] Thalhimer concludes [in a recent article] that in pools of plasma or serum, agglutinins are reduced to such a low level 'that no danger can result to patients from the injection of even large doses from these pools.' Large amounts of pooled plasma are given safely without any preliminary tests for compatibility."

Reporting on the recent accidental poisoning with roach powder of 263 inmates of the Oregon State Hospital, Salem, 47 of whom died, William L. Lidbeck, M.D., and Irvin B. Hill, M.D., Salem, and Joseph A. Beeman, M.D., Portland, advise in *The Journal of the American Medical Association* for March 13 that sodium fluoride, the chief ingredient of roach powder, should be packaged, labeled and distributed the same as any other well known poison. They also say it should be colored so it will be less easily mistaken for certain food substances which it closely resembles. In the Salem accident it was mistaken for powdered milk.

Young Father: "In your sermon this morning you spoke about a baby being a new wave on the ocean of life."

Minister: "I did."

Young Father: "A fresh squall would have been nearer the truth."

PRELIMINARY PROGRAM

OF THE

One Hundred Third Annual Meeting
Illinois State Medical Society

PALMER HOUSE

CHICAGO, ILLINOIS

MAY 18, 19, 20, 1943

General Sessions

OPENING MEETING

TUESDAY AFTERNOON, MAY 18, 1943

1:00 Meeting officially opened by the President, Edward H. Weld, Rockford.
Invocation—
Address of Welcome — The Mayor of Chicago.
Address of Welcome — President, Chicago Medical Society.
Report of Chairman, Committee on Arrangements, Robert S. Berghoff, Chicago.
Adjournment for scientific meetings.

TUESDAY EVENING, MAY 18, 1943

8:00 Oration in Medicine—
James E. Paullin, Atlanta, Georgia.

WEDNESDAY MORNING, MAY 19, 1943

11:00 Oration in Surgery—

WEDNESDAY AFTERNOON, MAY 19, 1943

1:30 President's Address—
Edward H. Weld, President, Illinois State Medical Society, Rockford.

THURSDAY MORNING, MAY 20, 1943

Induction of the President-Elect

Immediately following the completion of the second session of the House of Delegates, the President-Elect, George W. Post, Chicago, will be inducted into the office of President of the Illinois State Medical Society by the retiring President, Edward H. Weld.

All members and guests at the meeting are invited to attend this interesting function.

Joint Sessions

WEDNESDAY MORNING, MAY 19, 1943

Joint session of Sections on Medicine; Surgery; Public Health and Hygiene; Radiology; Pediatrics; and Obstetrics and Gynecology.

9:00 Subject to be announced.
Frank V. Meriwether, Columbus, Ohio.
9:20 "Convulsions."
M. G. Peterman, Milwaukee, Wisconsin.
9:40 "Medical Education in the Present War."
Roscoe J. Miller, Chicago.
Discussion opened by Eben J. Carey, Milwaukee, Wisconsin.
10:20 "Facts and Fancies in Vitamin Therapy."
Anton J. Carlson.

THURSDAY MORNING, MAY 20, 1943

Joint session of Sections on Medicine; Surgery; Public Health and Hygiene; Radiology; Pediatrics; and Obstetrics and Gynecology.

9:00 "Chest Wounds."
Lindon Seed, Camp Grant, Rockford.
9:30 Subject to be announced.
Frank B. Lusk, Camp Custer, Michigan.
10:00 "War Time Consideration of Syphilis."
Paul A. O'Leary, Mayo Clinic, Rochester, Minnesota.
10:30 "Film Demonstration of Virus Pneumonias and Their Complications."
Lt. Commander Warfield, Great Lakes.
11:00 "Epidemic Conjunctivitis."
Murray Saunders, Carlyle, Pennsylvania.
11:30 "Gonorrheal Infections in the Army."
E. H. Quandt, Camp Grant, Rockford.

Section Programs

SECTION ON MEDICINE

**M. Herbert Barker .....Chairman
Chauncey C. Maher .....Vice Chairman
George B. Stericker .....Secretary
**In Service.

TUESDAY AFTERNOON, MAY 18, 1943

2:00 "Heart Disease and Surgery."
Speaker to be announced.
Discussion opened by L. E. Hines, Chicago.
3:00 "Hepatitis and Cirrhosis."
Robert Keeton, Chicago.
3:30 "Hematology" — Round Table.
Howard Alt; Steven Otto Schwartz and Louis Limarzi, Chicago.

WEDNESDAY MORNING, MAY 19, 1943

Joint session with Sections on Surgery; Public Health and Hygiene; Radiology; Pediatrics; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

WEDNESDAY AFTERNOON, MAY 19, 1943

2:00 Chairman's Address —
2:30 "Shock Treatment in Psychiatry."
Vernon L. Evans, Aurora.
Discussion opened by Francis J. Gerty, Chicago.
3:30 "Cardiovascular Round Table."
Francis Murphy, Milwaukee, Wisconsin; Hermon H. Cole, Springfield; and Edgar M. Stevenson, Bloomington.

THURSDAY MORNING, MAY 20, 1943

Joint session with Sections on Surgery; Public Health and Hygiene; Radiology; Pediatrics; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

SECTION ON SURGERY

**J. C. Thomas Rogers .....Chairman
Joseph S. Lundholm .....Vice Chairman
J. R. Buchbinder .....Secretary
**In Service.

"Posterior Mediastinal Goitre."
J. M. Mora, Chicago.
"Treatment of Burn Lesions With Biodynes."
Thos. F. P. Walsh, Chicago.
"Pulmonary Embolism."
Minas Joannides and Arthur Hess, Chicago.

"Which Peptic Ulcer Should Be Operated Upon?"
Karl A. Meyer and F. Stigeman, Chicago.
"Tumor Diagnostic Services in Illinois."
Harry Otten, Springfield.
"Transurethral Drainage of Seminal Vesicles in Seminal Vesiculitis."
Robert H. Herbst and James W. Merricks, Chicago.
"The Recognition and Management of Surgical Lesions of the Sigmoid and Pelvic Colon."
John M. Wolfer, Chicago.
"The Care of Cleft Lips and Palate."
L. W. Schultz, Chicago.
"High Ligation and Retrograde Injection of Varicose Veins."
Joseph M. Gault, Chicago.
"One-sided Spinal Anesthesia in Extremity Surgery."
David L. Murphy, Dixon.
"The Selection of the proper Surgical Incision."
Alfred B. Owen, Rockford.

Time schedules for the above list of papers will appear in the May Journal.

WEDNESDAY MORNING, MAY 19, 1943

Joint session with Sections on Medicine; Public Health and Hygiene; Radiology; Pediatrics; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

THURSDAY MORNING, MAY 20, 1943

Joint session with Sections on Medicine; Public Health and Hygiene; Radiology; Pediatrics; and Obstetrics and Gynecology.
(For Complete Programs, See Joint Sessions.)

SECTION ON EYE, EAR, NOSE AND THROAT

G. Henry Mundt ..... Chairman
George H. Woodruff ..... Secretary

TUESDAY MORNING, MAY 18, 1943

9:00 "Diverticula of the Pharyngo-Esophagus, One Stage Operation."
Max M. Kulvin, Chicago.
9:30 "Periphlebitis, Phlebitis and Endophlebitis of the Retina."
Ignatius Sommer, Chicago.
10:00 "Cranial Osteomyelitis in Children."
Glenn Greenwood, Chicago.
10:30 "Head and Neck Neoplasms."
L. B. Bernheimer, Chicago.
11:00 "Industrial Ophthalmology and Otolaryngology."
Gordon F. Harkness, Davenport, Iowa.

TUESDAY AFTERNOON, MAY 18, 1943

INSTRUCTION COURSES

2:00 "Meniere's Syndrome."
John R. Lindsay, Chicago.
2:00 "Selection of Types of Operation for Cataract Surgery."
Samuel J. Meyer, Chicago.
3:30 "Treatment of the Sinuses by Irrigation."
O. E. Van Alyea, Chicago.
3:30 "The Treatment of Some Conjunctival Diseases."
A. C. Krause, Chicago.

TUESDAY EVENING, MAY 18, 1943

6:00 Banquet.

7:30 "Masterpieces of Man and Nature in Color Photography."
The 1942 Art Institute Exhibit of Rembrandts and other Dutch Masters reproduced by color photography.
The second portion will consist of views of some famous gardens and many gorgeous views of Zion, Grand Canyon and Bryce Canyon National Parks.

WEDNESDAY MORNING, MAY 19, 1943

9:00 "Fuso-Spirochetal Tracheobronchitis."
Paul H. Holinger and Ralph G. Rigby, Chicago.
9:30 "Results of Surgical Treatment of Acute Congestive Glaucoma."
Peter C. Kronfeld and H. Isabelle McGarry, Chicago.
10:00 "Nasal Sinusitis: Prognosis and Treatment Based on a More Rational Histopathologic Interpretation."
A. R. Hollender and M. F. Snitman, Chicago.
10:30 "A Potpourri of Clinical Cases in Kodachrome."
Roy O. Reiser, Park Ridge.
11:00 Business Meeting.

WEDNESDAY AFTERNOON, MAY 19, 1943

INSTRUCTION COURSES

2:00 "The Treatment of Some Corneal Diseases."
Sanford R. Gifford, Chicago.
2:00 "Allergy in Diseases of the Ear, Nose and Throat."
George E. Shambaugh, Jr., Chicago.

SECTION ON PUBLIC HEALTH AND HYGIENE

Henry C. Niblack ..... Chairman
Roland R. Cross ..... Secretary

TUESDAY AFTERNOON, MAY 18, 1943

War and Post-war Public Health Service
"Point of View of the Federal Government."
F. V. Meriwether, District Director, Dist. No. 3, U. S. Public Health Service, Chicago.
"Point of View of the State With Emphasis on Rural State Departments of Public Health."
Richard F. Boyd, State Department of Public Health, Springfield.
"Point of View of the City."
Speaker to be supplied.
"Point of View of the Public."
Mr. Frederic Woodward, Chairman State-wide Public Health Committee, Chicago.

WEDNESDAY MORNING, MAY 19, 1943

Joint session with Sections on Medicine; Surgery; Radiology; Pediatrics; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

WEDNESDAY AFTERNOON, MAY 19, 1943

Joint session with Sections on Pediatrics; and Obstetrics and Gynecology.

"Gynecological Problems of Adolescence."
Edward Allen, Chicago.
"Psychiatric Problems of Adolescence."
David Slight, Chicago.
"The War-time Maternal and Child Welfare Program."
Fred L. Adair, Springfield.
"Convulsions in Infancy and Childhood."
M. G. Peterman, Milwaukee, Wisconsin.

THURSDAY MORNING, MAY 20, 1943

Joint session with Sections on Medicine; Surgery; Radiology; Pediatrics; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

SECTION ON RADIOLOGY

**Cesare Gianturco .....Chairman
F. Flinn .....Vice Chairman
Fay H. Squire .....Secretary
**In Service.

TUESDAY AFTERNOON, MAY 18, 1943

"Abdominal Tumors of Questionable Origin, Roentgenological Aspects."
Adolph Hartung, Chicago.

Film Reading Session
Chester Challenger, Chicago.
David Belin, Chicago.
John E. Madden, Decatur.
Fred H. Decker, Peoria.

WEDNESDAY MORNING, MAY 19, 1943

Joint session with Sections on Medicine; Surgery; *Public Health and Hygiene; Pediatrics; and Obstetrics and Gynecology.*
(For Complete Program, See Joint Sessions.)

THURSDAY MORNING, MAY 20, 1943

Joint session with Sections on Medicine; Surgery; Public Health and Hygiene; Pediatrics; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

SECTION ON PEDIATRICS

A. J. Fletcher .....Chairman
Robert Cummings .....Secretary

TUESDAY AFTERNOON, MAY 18, 1943

SYMPOSIUM ON NUTRITION
"The Pattern of Growth in Infancy and Childhood."
John Carey, Joliet.
"Nutritional Anemias."
Henry Poncher, Chicago.
"Vitamin Requirements in Infants and Children."
John R. Vonachen, Peoria.
"Scientific Diets and Feeding Habits of Infants."
C. A. Aldrich, Chicago.

WEDNESDAY MORNING, MAY 19, 1943

Joint session with Sections on Medicine; Surgery; Public Health and Hygiene; Radiology; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

WEDNESDAY AFTERNOON, MAY 19, 1943

Joint session with Sections on Public Health and Hygiene; and Obstetrics and Gynecology.
(For Complete Program, See Section on Public Health and Hygiene.)

THURSDAY MORNING, MAY 20, 1943

Joint session with Sections on Medicine; Surgery; Public Health and Hygiene; Radiology; and Obstetrics and Gynecology.
(For Complete Program, See Joint Sessions.)

SECTION ON OBSTETRICS AND GYNECOLOGY

Clyde J. Geiger .....Chairman
C. J. Heiberger .....Secretary

"The Importance of the Outlet Contraction of the Pelvis in Obstetrics."
Ralph E. Campbell, Madison, Wisconsin.
Discussion opened by E. L. Cornell, Chicago.
"Inversion of the Uterus in Gynecology and Obstetrics."
Channing W. Barrett, Chicago.
Discussion opened by James H. Bloomfield, Chicago.
"The Treatment of Benign Uterine Bleeding in the Menopause."
J. Robert Willson, Chicago.
Discussion opened by Wm. T. Carlisle, Chicago.
"Surgical Complications of Pregnancy."
W. G. Cummings, Evanston.
Discussion opened by Wm. A. Malcolm, *Peoria.*

Time schedules for the above list of papers will appear in the May Journal.

WEDNESDAY MORNING, MAY 19, 1943

Joint session with Sections on Medicine; Surgery; Public Health and Hygiene; Radiology; and Pediatrics.
(For Complete Program. See Joint Sessions.)

WEDNESDAY AFTERNOON, MAY 19, 1943

Joint session with Sections on Public Health and Hygiene; and Pediatrics.
(For Complete Program, See Section on Public Health and Hygiene.

THURSDAY MORNING, MAY 20, 1943

Joint session with Sections on Medicine; Surgery; Public Health and Hygiene; Radiology; and Pediatrics.
(For Complete Program, See Joint Sessions.)

PROGRAMS OF SPECIAL ORGANIZATIONS
SECRETARIES' CONFERENCE

R. T. Pettit ..... Chairman
P. J. McDermott ..... Vice Chairman
Fred H. Muller ..... Secretary

TUESDAY EVENING, MAY 18, 1943

You and your friends are cordially invited to attend the Secretaries' Conference, Tuesday evening, May 18, 6:00 P.M., Palmer House, Chicago.

The officers have arranged a program which will be of unusual interest particularly at this time.

1. The Honorable H. H. Thomas, British Consulate General, Chicago, has accepted an invitation to talk on

"THE JAPANESE AS I KNEW THEM"

Mr. Thomas spent many years in Japan in diplomatic service and comes highly recommended.

2. Charles H. Phifer, Past President of the Illinois State Medical Society, will talk on

"LATEST DEVELOPMENTS IN PROCUREMENT AND ASSIGNMENT"

Probably no member of the Illinois State Medical Society has given more generously of his time and energy to the war problems faced by the profession than Dr. Phifer.

Make Your Plans Now To Attend! May 18, 1943!

MEDICAL WOMEN'S ASSOCIATION

The Annual Breakfast of the women members of the Illinois State Medical Society will be held at the Palmer House at 8:30 A. M., May 19th. The Annual Clinical Meeting will be held at the Women's and Children's Hospital that afternoon at 2:00 P. M. followed by tea at 4:30 P. M.

MEDICAL ALUMNI ASSOCIATION, UNIVERSITY OF ILLINOIS

The Medical Alumni Association of the University of Illinois will hold an annual luncheon at the Palmer House on May 19th, Wednesday, at 12 noon. An interesting program is planned. Due to food restrictions, reservations will be required. Please mail $2.00 to cover cost per plate. Guests are invited. Dr. George W. Post will preside.

Dr. M. H. Streicher, Secretary-Treasurer
1853 W. Polk Street, Chicago, Illinois

FIFTY YEAR CLUB LUNCHEON

Dr. Andy Hall, chairman of the Fifty Year Club of the Illinois State Medical Society is arranging the annual luncheon for members of the club to be held at the Palmer House, Wednesday noon, May 19, 1943. All members of the Fifty Year Club will receive a special anouncement and be urged to attend the luncheon.

An interesting but short program is being arranged and complete details will be published in the official program and likewise in the May Journal.

It is hoped that each member of the club will endeavor to attend this interesting annual luncheon, and Dr. Hall will appreciate any suggestions as to improving both the attendance and the interest. Address him at Mt. Vernon, Illinois.

MATERNAL WELFARE COMMITTEE LUNCHEON

The annual luncheon of the Maternal Welfare Committee of the Illinois State Medical Society, will be held at the Palmer House at 12:00 noon, Wednesday, May 19, 1943.

T. B. Williamson, Chairman of the Committee, will preside and immediately following the luncheon service, a round table discussion on "The Newer Developments in Obstetrics" will be presented by Frederick H. Falls, Chicago; Milton E. Bitter, Quincy; and Joseph T. O'Neill of Ottawa.

WOMAN'S AUXILIARY to the ILLINOIS STATE MEDICAL SOCIETY SIXTEENTH ANNUAL MEETING CHCAGO, ILLINOIS May 18, 19, 20, 1943

PRESIDENT'S MESSAGE

As President of the Woman's Auxiliary to the Illinois State Medical Society, I extend to all physicians' wives a most cordial greeting. It is the desire of the Chicago Medical Society as well as its component Auxiliary to welcome all physicians, their wives, and guests to this 103rd Annual Meeting in Chicago.

The purposes of a State Convention are:

1. To review and appraise the work of the year of the State Board and the County Auxiliaries.
2. To decide what work is to be undertaken for the coming year.
3. To devise plans for carrying on that work.

The Convention Chairman, Mrs. C. W. Stigman, and the Committee on Arrangements have planned a series of social functions in order that your sojourn in Chicago may be pleasant.

You are urged to make reservations as soon as possible in order to expedite the work of the committee.

We can assist our doctor husbands by our interest in this Annual Meeting.

Mrs. W. J. Wanninger, President.

ADVISORY COMMITTEE

Dr. F. P. Hammond, Chairman.
Dr. R. K. Packard ..... Chicago, Ill.
Dr. S. E. Munson ..... Springfield, Ill.
Dr. Harold Camp ..... Mommouth, Ill.
Dr. M. G. Carpenter ..... Elgin, Ill.
Mrs. Clarence Goodwin, Parliamentarian.

PROGRAM

TUESDAY, MAY 18, 1943 — PALMER HOUSE

9:00 A. M. Registration
10:00 A. M. Pre-Convention Board Meeting
Mrs. W. J. Wanninger, Presiding
12:00 Noon Adjournment
1:30 P. M. Star Spangled Banner:
Miss Jean Finch; Accompanist Mrs. Merle Finch

1:40 P. M. Invocation
The Rev. Richard D. Taylor, Rector Church of the Messiah, Chicago
Welcome
Mrs. C. W. Stigman, Convention Chairman
Response
Mrs. Arthur I. Edison, President, Woman's Auxiliary to the Chicago Medical Society
General Meeting—
Mrs. W. J. Wanninger, President presiding
Report of Credentials and Registration Committee
Mrs. C. C. Kane, Chairman
Reports of officers and chairmen

3:00 P. M. Address:
WOMEN AND A WORLD AT WAR
Dr. W. W. Bauer

6:00 P. M. Dinner—
Mrs. Alfred P. Gareiss, Chairman
Star Spangled Banner: Miss Jean Finch
Accompanist: Mrs. Merle Finch
Greetings — Dr. J. P. Simonds, Past President, Chicago Medical Society
Speakers: Dr. E. H. Weld, President Illinois State Medical Society
Mrs. G. Henry Mundt, Past President, Woman's Auxiliary to the Illinois State Medical Society, and organizer of Auxiliary
Introduction of Honored Guests, Officers and Committees

Dinner Program — Mrs. C. W. Stigman, Program Chairman
Miss Lois Wallner, Soprano
Mr. Earl Wilkie, Baritone
Miss Isabel Ebert, Accompanist
Miss Dolly Lane, Dancer

WEDNESDAY, MAY 19, 1943 — Palmer House

8:30 A. M. Registration

9:30 A. M. General Meeting — Mrs. W. J. Wanninger, President Presiding

9:45 A. M. Memorial Service — Mrs. P. P. Youngberg, Chairman

10:00 A. M. Final Reports

10:30 A. M. Symposium: PROBLEMS OF THE AUXILIARY
Mrs. Frank P. Hammond, presiding

11:45 A. M. Final report Credentials and Registration
Mrs. C. C. Kane, Chairman
Resolutions — Mrs. L. D. Evans, Chairman

12:30 P. M. Star Spangled Banner, Miss Jean Finch Accompanist, Mrs. Merle Finch

12:40 P. M. Presidents Luncheon — Mrs. Arthur I. Edison, Presiding
Introduction of Past State Presidents and Guests
Greetings — Dr. Frank P. Hammond
Address — Lt. Commander H. P. Saunders

2:30 P. M. Post-Convention Meeting — Mrs. M. A. Nix, Presiding

3.30 P. M. Tea or Tour — Mrs. Frederick Tice, Chairman

Committee

Mrs. R. K. Packard
Mrs. R. S. Berghoff
Mrs. J. S. Nagel
Mrs. L. B. Joslyn

CHAIRMEN AND COMMITTEES

Convention Chairman — Mrs. C. W. Stigman
Women's Activities — Mrs. Frederick Tice

Registration and Credentials Committee
Mrs. C. C. Kane, Chairman, East St. Louis
Mrs. A. C. Taylor, Chicago
Mrs. J. A. Bondzinski, Chicago
Mrs. R. F. Greening, Chicago
Mrs. H. H. Hurd, Highland Pk.
Mrs. C. R. Landis, Chicago

Press and Publicity
Mrs. J. E. McGuiggan, Chicago

Resolutions
Mrs. L. D. Evans, Aurora, Ill.

Reception Committee
Chairman. Mrs. Roy Hutchison
Mrs. John Soukup, Chicago
Mrs. Charles LaHodney, Chicago
Mrs. R. W. Hubbard, Chicago
Mrs. Frank J. Smejkal, Chicago
Mrs. George C. Turner, Chicago
Mrs. Stephen Biezis, Chicago
Mrs. E. A. Lutton, Chicago
Mrs. K. L. Vehe, Chicago
Mrs. H. W. Miller, Chicago
Mrs. M. M. Hipskind, Chicago
Mrs. Julius Ginsberg, Chicago
Mrs. W. J. Vopata, Chicago
Mrs. Frank Wojniak, Chicago
Mrs. T. B. Bondus, Chicago
Mrs. H. W. Elghammer, Chicago
Mrs. M. R. Hadden, Chicago
Mrs. W. F. Bartelt, River Forest
Mrs. Joseph La Rocca, Chicago
Mrs. G. B. Fauley, Chicago
Mrs. J. F. Hammond, Chicago
Mrs. Morton Baker, Chicago

Table Decorations
Mrs. N. I. Baskind, Chicago, Ill.

Dinner Committee
Mrs. Alfred P. Gareiss, Chairman, Chicago
Mrs. R. E. Johnson, Chicago
Mrs. A. J. Weigen, Chicago
Mrs. N. Dykstra, Chicago
Mrs. T. Johnston, Chicago
Mrs. M. R. Hadden, Chicago

Program
Mrs. C. W. Stigman

Luncheon Committee
Mrs. A. I. Edison. Chairman
Mrs. M. R. Haden (Aux Plaines)
Mrs. Nicholas Dykstra (Calumet)
Mrs. Henry Christiansen (Englewood)
Mrs. Reinhold E. Johnson (Irving Park)
Mrs. Myron M. Hipskind (Jackson Park)
Mrs. A. J. Weigen (North Shore)
Mrs. Harold I. Meyer (North Side)
Mrs. Anthony Linowiecki (Northwest)
Mrs. E. M. Egan (South Chicago)
Mrs. Theodore Johnston (Stock Yards)
All Past Presidents (Honored Guests)

Exhibits
Mrs. McGuiggan, Chairman
Mrs. Burroughs, co-chairman

Ricket Committee
Mrs. Calvin Short, Chairman (Northwest)
Mrs. C. W. Stuart (Aux Plaines)
Mrs. Henry Christiansen (Englewood)
Mrs. Wm. Murray (South Chicago)
Mrs. H. L. Wallin (Irving Park)

Memorial
Mrs. P. P. Youngberg, Chairman, Rock Island, Ill.

ILLINOIS CHAPTER OF THE AMERICAN COLLEGE OF CHEST PHYSICIANS

The Illinois Chapter of the American College of Chest Physicians will hold its annual meeting on Tuesday, May 18 at the Palmer House, Chicago. The speaker for the meeting will be announced in the May issue of the journal. Dr. Minas Joannides, Chicago, Vice President of the Illinois Chapter of the College will present a paper on "Pulmonary Embolism" in the Section on Surgery. Officers for the ensuing year will be elected.

PHYSICIANS' ASSOCIATION DEPARTMENT OF PUBLIC WELFARE STATE OF ILLINOIS

Rudolph G. Novick .....President
Ethel A. Chapman .....Secretary-Treasurer
Eric Liebert .....Chairman Program Committee

"Pathology of Chronic Alcoholism With Special Reference to The Nervous System."
W. R. Kirschbaum, Manteno.
"Nervous and Mental Manifestations of Spontaneous Hypoglycaemia."
A. A. Lieberman and H. G. Lonsdale, Elgin.
"Cranial Anomalies."
H. Josephy, Lincoln.
"Prevention of Hemorrhages During Electric Shock in The Nervous System of Experimental Animals."
G. Heilbrunn, Chicago.
"A Study of The Results of Electric Shock Treatment."
R. Gronner, Elgin.
"The Influence of the Draft on the Formation of Psychoses in Women."
M. Wallenberg, Manteno.
"A Rorschach Study of Symptomatic Schizophrenia Following Brain Trauma."
J. L. Endacott, Manteno.

INDUSTRIAL HEALTH CONFERENCE

Combined meeting of Central States Society of Industrial Medicine and Surgery and Chicago Society of Industrial Medicine and Surgery.

C. O. Sappington .....President
Central States Society of Industrial Medicine and Surgery
Clarence W. Hennan .....President
Chicago Society of Industrial Medicine and Surgery

Program Chairmen

James J. Callahan.....Thomas D. Browning

TUESDAY MORNING, MAY 18, 1943

9:00 President's Address (Chicago Society)
Clarence W. Hennan, Chicago.
"Industrial Health and the Employer."
Mr. Sterling Morton, President, Illinois Manufacturers Association, Chicago.
"Labor's Attitude on Industrial Health."
Mr. James Crosser, Chief Chemist, Industrial Hygiene Division, Illinois State Department of Labor, Chicago.
"Industrial Health and the Industrial Physician."
Harold Vonachen, General Medical Director, Caterpillar Tractor Company, Peoria.
President's Address (Central States Society.)
"Industrial Health — Its War and Post-War Significance."
C. O. Sappington, Chicago.
General Discussion.

MEETINGS OF THE HOUSE OF DELEGATES

TUESDAY AFTERNOON, MAY 18, 1943

3:00 First meeting of the House of Delegates called to order by the President, Edward H. Weld, for Reports of Officers, Councilors, Committees, Appointment of Reference Committees, Introduction of Resolutions, and for the transaction of other business which may come before the House.

THURSDAY MORNING, MAY 20, 1943

9:00 Second meeting of the House of Delegates called to order by the President for the Election of Officers, Councilors, Committees, Delegates and Alternates to the American Medical Association, Reports of Reference Committees and action on same, action on Resolutions, and for the transaction of other business to come before the House.

SCIENTIFIC EXHIBITS

Frank J. Jirka, Chairman .....Chicago
H. Close Hesseltine, Director of Exhibits, Chicago

"Intra-Capsular Fractures of the Neck of the Femur."
A. A. Mertz, Decatur.
"Modified Paris Technic of Radium Therapy for Uterine Cervical Cancer."
Harold Swanberg, Quincy.
"Anatomical Presentation of Bronchial Tree from Endoscopic Standpoint."
E. W. Hagens, Chicago.
"Skeletal Traction for Forearm Fractures."
John D. Ellis, Chicago.
"Modern Treatment of Seminal Vesiculitis."
Robert H. Herbst and James W. Merricks, Chicago.
"Caterpillar Tractor Company Health Program During Time of War."
Harold A. Vonachen, Peoria.
"Kidney Function—Extravasation of Urine—Bladder Regeneration."
V. Lespinasse and Victoire Lespinasse, Chicago.
"Amputations."
American Medical Association, Chicago.
"Information about Industrial Health."
American Medical Association, Chicago.
"War Manpower."
Procurement and Assignment Service For Physicians.
"Medical Care Program."
Illinois Department of Public Welfare.
The above list is not complete.

Technical Exhibitors

The Armour Laboratories, Chicago, Illinois
American Hospital Supply Corporation, Chicago, Illinois
Abbott Laboratories, North Chicago, Illinois
Ayerst, McKenna & Harrison, Rouses Point, New York
Bilhuber-Knoll Corporation, Orange, New Jersey
Burroughs Wellcome & Company, Inc., New York, New York
The Borden Company, New York, New York
Ciba Pharmaceutical Products, Inc., Summit, New Jersey
Cameron Surgical Specialty Company, Chicago, Illinois
Cambridge Instrument Company, Inc., New York, New York
Carnation Company, Milwaukee, Wisconsin
Camel Cigarettes, New York, New York
Chicago Pharmacal Company, Chicago, Illinois
F. A. Davis Company, Philadelphia, Pennsylvania
Doak Company, Incorporated, Cleveland, Ohio
The Doho Chemical Corporation, New York, New York
DePuy Manufacturing Company, Warsaw, Indiana
Eli Lilly and Company, Indianapolis, Indiana
C. B. Fleet Co., Inc., Lynchburg, Virginia
Flint Eaton & Co., Decatur, Illinois
General Electric X-Ray Corp., Chicago, Illinois
Otis E. Glidden & Co. Inc., Evanston, Illinois
Gerber Products Company, Fremont, Michigan
H. J. Heinz Company, Pittsburgh, Pennsylvania
Hoffman-La Roche Inc., Nutley, New Jersey
Horlick's Malted Milk Corporation, Racine, Wisconsin
The Kelley-Koett Mfg. Co., Inc., Covington, Kentucky
Kellogg Company, Battle Creek, Michigan
Lederle Laboratories, Inc., New York, New York
J. B. Lippincott Company, Philadelphia, Pennsylvania
Libby, McNeill & Libby, Chicago, Illinois
M. & R. Dietetic Lab., Inc., Columbus, Ohio
Mellin's Food Company, Boston, Massachusetts
The Medical Protective Company, Fort Wayne, Indiana
The C. V. Mosby Company, St. Louis, Missouri
Mead Johnson & Company, Evansville, Indiana
The Wm. S. Merrell Company, Cincinnati, Ohio
V. Mueller & Company, Chicago, Illinois
Nutrition Research Laboratories, Chicago, Illinois
The E. L. Patch Co., Stoneham, Massachusetts
Parke, Davis & Company, Detroit, Michigan
Picker X-Ray Corporation, New York, New York
Petrogalar Laboratories, Inc., Chicago, Ill.
Philip Morris & Co., Ltd., Inc., New York, New York
Pet Milk Sales Corp., St. Louis, Missouri
Riedel — deHaen, Inc., New York, New York
Schering Corporation, Bloomfield, New Jersey
E. R. Squibb & Sons, New York, New York
W. B. Saunders Company, Philadelphia, Pennsylvania
Sharp & Dohme, Philadelphia, Pennsylvania
Frederick Stearns & Company, Detroit, Michigan
Smith, Kline & French Laboratories, Philadelphia, Pennsylvania
S.M.A. Corporation, Chicago, Illinois
Sutliff & Case Co., Inc., Peoria, Illinois
White Laboratories, Inc., Newark, New Jersey
Winthrop Chemical Company, Inc., New York, New York
John Wyeth & Brother, Inc., Philadelphia, Pennsylvania
Zimmer Manufacturing Co., Warsaw, Indiana

NOTES ON TECHNICAL EXHIBITS

AMERICAN HOSPITAL SUPPLY CORPORATION, Booth No. 14

On display in Booth 14, occupied by American Hospital Supply Corporation, will be two new items of especial interest to all hospital people. Biodyne, the new healing agent for burns which has had so much favorable clinical comment, and Derma-Fresh, the body-rub which is so superior to hard-to-get alcohol.

Demonstrations of the E and J Resuscitator and a complete presentation of the Baxter Intravenous Therapy program will also be featured at the American booth.

THE ARMOUR LABORATORIES, Booths Nos. 87 and 88

A cordial invitation is extended to members of the Illinois State Medical Society to visit their exhibit in booths Nos. 87 and 88. The physicians will find an interesting exhibit on Thyroid. Case reports of thyroid deficiencies will be exhibited by means of wax models depicting cases of thyroid deficiencies before and after treatment. Armour's new and complete booklet on Thyroid also awaits you at the exhibit.

AYERST, McKENNA & HARRISON (UNITED STATES) LIMITED, Booth No. 33

Naturally occurring orally-active estrogenic hormones, "Premarin" and "Emmenin", the origination of which figures prominently in the background of Ayerst, McKenna & Harrison, will be given precedence in their display.

"Premarin", which culminates a ten years' search for a highly potent natural estrogen for oral administration, will be of particular interest. Reprints of original papers on the clinical value of this new product, by nationally prominent investigators, will be made available to interested members of the medical profession at the Ayerst booth.

BILHUBER-KNOLL, Booth No. 80

The "Council Accepted" prescription chemicals of Bilhuber-Knoll find an important place in war-time medicine because of their proved effectiveness and dependability. Metrazol — the respiratory and circulatory restorative; Theocalcindiuretic and myocardial stimulant; and Dilaudid-analgesic and cough sedative are receiving increasing use by the Army, Navy, and other governmental agencies. Art Murbach and Basil Kidwell will be on hand to discuss the latest reports on these and other well-known medicinal chemicals, including Phyllicin, Euresol and Bromural.

BURROUGHS WELLCOME & COMPANY (U.S.A.) INC., Booth No. 99

BURROUGHS WELLCOME & CO. (U. S. A.) INC., New York (Booth No. 99) presents a representative group of fine chemicals and pharmaceutical preparations, together with new and important therapeutic agents of special interest to the medical profession.

CAMEL CIGARETTES, Booths 3 and 4

CAMEL Cigarettes will exhibit large detailed photographs of equipment used in comparative tests of the five largest-selling brands of cigarettes. Representatives will be available to discuss research. See for the first time the dramatic visualization of nicotine absorption from cigarette smoke in the human respiratory tract. Keep up to the minute on international news with the CAMEL Cigarette Trans-Lux "Flash Bulletins," while you enjoy a supply of slow-burning CAMEL Cigarettes.

CAMERON SURGICAL SPECIALTY COMPANY, Booth No. 78

See the Cameron Flexible Gastroscopes, Bronchoscopes, Esophagoscopes, Laryngoscopes, Binocular Prism Loupe, Color-Flash Clinical Camera, Mirrolite, Magniscope, and other new developments in electrically lighted Diagnostic and Operating Instruments for all parts of the body. Of special interest are the new Electro Surgical Units (the genuine Radio Knives) for cutting, coagulating, desiccating and fulgurating in all sizes from the office model Cauteradio to major Hospital Units with abundance of power for radical surgery.

CHICAGO PHARMACAL COMPANY, Booth No. 1

We will exhibit a complete pharmaceutical line which includes ampuls, tablets, friable pills, ointments, suppositories, elixirs, syrups and sterile solutions. Catalogs and samples will be distributed. Mr. B. M. Cahill will be in charge, assisted by local representatives. Our firm established in 1900 caters exclusively to the medical profession.

CIBA PHARMACEUTICAL PRODUCTS, INC., Booth No. 107

Physicians are cordially invited to visit booth number 107 where the well-known products of Ciba Pharmaceutical Products, Inc. are on display. Three new additions to the fine line of Ciba pharmaceuticals merit your attention. They are: Biotose, Trasentine-Phenobarbital and Privine. A well-informed representative of the company will be in attendance to supply information on any Ciba preparation.

F. A. DAVIS COMPANY, Booth 83

You carry Life and Accident Insurance to protect your family, Fire Insurance to protect your property, Automobile Liability and Medical Protective Insurance to protect your savings. Thirty thousand doctors have already **insured** their professional future by purchasing "The Cyclopedia of Medicine, Surgery and Specialties." Better insurance is not obtainable. See the new edition at Booth 83.

M & R DIETETIC LABORATORIES, INC., Booth No. 94

"M & R Dietetic Laboratories, Inc., booth number 94, will display Similac, a food for infants deprived partially or entirely of breast milk; also powdered SoiKurd. Representatives will appreciate the opportunity to discuss the merit and suggested application of these products."

THE DOHO CHEMICAL CORPORATION, Booth No. 50

The Auralgan Exhibit consists of a model of the human auricle four feet high together with a series of twenty-four three dimensional ear drums, modelled under the supervision of outstanding otologists. Each of these drums depict a different pathologic condition based upon actual case observation, and prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

C. B. FLEET CO., INC., Booth No. 34

PHOSPHO-SODA (FLEET)

An ethical product for over half a century — a saline eliminant

What may you, as a physician, expect from this stable, non-toxic concentrate of the two U. S. P. sodium phosphates?

1. Accurate dosage, regulated to the patient and to his condition.
2. The maximum therapeutic effectiveness of sodium phosphate.
3. Quick, gripeless evacuation, for emergencies.
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HORLICK'S MALTED MILK CORPORATION, Booth No. 12

HORLICK'S MALTED MILK CORPORATION, Racine, Wisconsin (Booth 12) cordially invites you to visit their booth and enjoy a refreshing serving of chocolate malted milk. This palatable, delicious and easily digested food-drink is indicated as a supplement to liquid and semiliquid diets. It is basic nutrition because it is a scientifically well-balanced combination of proteins and carbohydrates of full-cream milk and choice grains.

THE KELLEY-KOETT MANUFACTURING COMPANY, Booth No. 76

The Kelley-Koett Manufacturing Company of Covington, Kentucky, manufacturers of X-ray apparatus, are exhibiting in Space No. 76 this year.

Conservation of existing X-ray equipment is of paramount importance to all physicians and hospitals. KELEKET has worked out a Conservation Plan that is unique and will be of interest to all owners of X-ray equipment. We recommend that you investigate this at their booth.

KELEKET will also show a line of accessories and supply items for the X-ray laboratory and dark room. This entire exhibit promises to be a very interesting one.

The KELEKET exhibit will be in charge of Mr. G. E. Geise, Vice President, assisted by Mr. H. D. Welch, Chicago district manager, Mr. Frank Geiger, Mr. J. F. McManemin, Mr. G. C. Heppe, Mr. G. L. Templar, Mr. P. Schick and other members of our Illinois staff.

THE KELLOGG COMPANY, Booth No. 57

All Kellogg ready-to-eat cereals either are made from whole grains or are restored to whole grain nutritive value.

Kellogg's Pep, (whole wheat flakes), in addition to being restored to whole grain value, has been fortified with Vitamins B_1 and D.

Corn Flakes and Rice Krispies may be included freely in wheat-free and low residue diets. Nutrition folders and further information about these products available at Kellogg exhibit.

MEDICAL PROTECTIVE COMPANY, Booth No. 18

The Medical Protective Company's representative, thoroughly trained in Professional Liability underwriting, invites you to visit exhibit booth No. 18. He is entirely familiar with the principles of the reciprocal rights and duties of a doctor and patient and with the circumstances peculiar to that relationship. He will be glad to explain how his Company meets the exacting requirements of adequate liability protection, which are peculiar to the Professional Liability field.

MELLIN'S FOOD, Booth 96

An exchange of ideas relative to the feeding of infants and in regard to the nourishment for adults requiring a restricted diet are of much value in view of the importance of selecting food best adapted to the individual requirement.

The Chicago Meeting will afford an opportunity for such discussion with representatives of the Mellin's Food Company and members of the Association are cordially invited to call at Space 96.

WM. S. MERRELL COMPANY, Booth 47

The Merrell exhibit will feature NITRANITOL, for medical management of essential hypertension, the BETA-CON-CEMIN high potency vitamin B complex products, and other modern therapeutic agents of broad usefulness to the practicing physician. Members and guests of the Society are cordially invited to visit the Merrell booth.

NUTRITION RESEARCH LABORATORIES

NUTRITION RESEARCH LABORATORIES will present three products, all of which are of extreme interest to the medical profession.

ERTRON, electrically activated vaporized ergosterol (Whittier Process) 50,000 U.S.P. units per capsule, continues to gain favor with members of the medical profession because of its therapeutic value in the treatment of chronic arthritis.

BEZON, Whole Natural Vitamin B Complex in capsule form, containing the whole B complex, derived entirely from natural sources and concentrated to a high potency.

PENDRON, the complete vitamin arch, containing all of the vitamins in amounts recommended by official governmental agencies and in addition recently discovered vitamin B factors — Vitamin B6 (Pyridoxine Hydrochloride) and Calcium Pantothenate (Filtrate Factor).

We welcome the opportunity of discussing all three products with members of the Illinois State Medical Society.

PARKE DAVIS & COMPANY, Booth No. 58

At the Parke-Davis Exhibit, which has been streamlined because of present war-time requirements, you will find many new and scientific Pharmaceutical and Biological Products. Included in this display are such outstanding preparations as Phemerol, a non-toxic germicide and antiseptic; Vitamins; Sulfa Drugs; Despeciated Anti-toxins, and a number of other products of timely interest. Able and courteous members of the Parke, Davis & Co. Staff are in daily attendance to serve you.

PET MILK COMPANY, Booths 90 and 91

An actual working model of a milk-condensing plant in miniature will be exhibited by the Pet Milk Company in Booths No. 90 and No. 91. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk, its uses in infant feeding, and the time-saving Pet Milk services available to physicians. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

PICKER X-RAY CORPORATION, Booth No. 106

In welcoming visitors to their exhibit, the Picker X-Ray Corporation is pleased to display the U. S. Army Field Unit and the Light-Weight Air-Flow Unit, both of which are in extensive use in the Army.

The Field Unit is designed for Radiography, Fluoroscopy, Superficial Therapy, and Foreign Body Localization.

The Air Flow Unit contains its own localization table, and may also be used as radiographic equipment.

PETROGALAR LABORATORIES, INC., Booth No. 92

Physicians are cordially invited to visit the Petrogalar exhibit at Booth No. 92, where a new and enlightening story on Petrogalar, an aqueous suspension of mineral oil, will be related. Beautifully colored anatomical drawings and new literature may be had upon request from our professional representatives who will be in constant attendance.

PHILIP MORRIS & CO., LTD., INC., Booth No. 64

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

W. B. SAUNDERS COMPANY, Booth No. 108

This publishing house will exhibit a complete line of their books. Most of them, particularly the new ones, are of unusual interest at this time, not alone to the doctors in civilian practice but also to those in the Medical Corps of the various branches of the Service. For instance, there are the Official Military Medical and Surgical Manuals published by Saunders under the auspices of the National Research Council, Lundy's "Anesthesia," Weiss & English's "Psychosomatic Medicine," Wharton's "Gynecology including Female Urology," Rehfuss' "Indigestion," Dry's "Cardiology," the new Boyd's "Surgical Pathology," the new Beckman's "Treatment," the new Christopher's "General Surgery," the new Mason's "Pre- and Postoperative Treatment."

SCHERING CORPORATION, Booth 66

Physicians are invited to the Schering booth where they will find information and literature dealing with recent and endocrine advances. The new sublingual of the adrenal cortex — will be demonstrated. Representatives will be pleased to discuss the speciality hormones, Progynon, Oreton, Proluton, and Pranone. Available, too, is the latest literature concerning modern therapy of rheumatoid arthritis with Schering's gold compound, Solganal-B Oleosum.

SHARP & DOHME, Booth 79

Sharp & Dohme will have their display at Booth No. 79, featuring "Lyovac" Normal Human Plasma, other "Lyovac" biologicals and biological specialties. There will also be on display a group of pharmaceutical specialties, such as "Sulfasuxidine" succinylsulfathiazole, "Delvinal," Sodium, "Propadrine" Hydrochloride products, "Rabellon," "Riona," "Depropanex," and "Prohexinol." Capable well-informed representatives will be on hand to welcome all visitors and furnish information on Sharp & Dohme products.

S.M.A. CORPORATION, Booth 97

Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S. M. A. Corporation. Physicians who visit this exhibit at Booth No. 97 may obtain complete information as well as samples, of S-M-A Powder and the special milk preparations — Protein S-M-A (Acidulated), Alerdex and Hypo-Allergic Milk.

SMITH, KLINE & FRENCH LABORATORIES

Benzedrine Sulfate Tablets will be featured at this exhibit. It has been said that Benzedrine Sulfate offers "a therapeutic rationale which, in its very efficiency, cuts across the old categories." It is, therefore, useful in many widely varied fields of medicine.

Won't you call upon us if you desire information about the use of this highly important compound in depressive states; as an adjunct in the treatment of alcoholism; and in post-encephalitic parkinsonism, narcolepsy? One of our professional representatives will be glad to discuss with you its potentialities and possible indications in your own practice.

Benzedrine Inhaler, N.N.R., "Paredrine Hydrobromide Aqueous", "Paredrine" — Sulfathiazole Suspension, Eskay's pentaplex and Pragmasul will also be exhibited.

E. R. SQUIBB & SONS, No. 98

The Squibb Exhibit in Booth No. 98 will feature a number of new Chemotherapeutic Specialties, as well as the latest additions to their line of Vitamin, Glandular and Biological Products. Well informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

SUTLIFF & CASE CO., INC., Booth 103

Sutliff & Case Co., Inc., established sixty years ago will display a portion of the many pharmaceutical items they manufacture. Their Illinois representatives will be on hand to greet you and will have any information you wish on their fine line of pharmaceuticals.

WHITE LABORATORIES, INC., Booth No. 70

Within recent years tremendous advances in vitamin research have added a wealth of clinical data to our knowledge of nutrition.

The intense interest of the laity, in the vitamins — often, unfortunately, confused and misled by unauthoritative lay advertising and uninformed "information" — can be properly controlled by the physician's interpretation of the actual usefulness of the vitamins to his patients.

In Booth No. 70 White Laboratories, Inc. presents its complete line of ethically promoted, clinically reputable vitamin preparations. Qualified representatives are in attendance to discuss with you the use of White's products in vitamin prophylaxis and therapy. Descriptive literature is available for your review, and a cordial welcome awaits you.

WINTHROP CHEMICAL CO., INC., Booth No. 56

The Winthrop Chemical Co., Inc., extends a cordial invitation to visit booth No. 56, where representatives will gladly discuss the latest contributions made by this firm to the medical profession.

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Symposium on Industrial Health

WE HAVE A JOB TO DO TO IMPROVE THE HEALTH OF THE INDUSTRIAL WORKER

THE HONORABLE DWIGHT H. GREEN,
Governor of Illinois

The honor of addressing this gathering of business and industrial executives is an enviable one, and I am particularly happy to have the opportunity to discuss with you the problem of industrial health. It has long been a subject of great concern to me.

The health and well-being of the industrial worker now assumes greater importance than ever, in that it is a vital and inextricable part of the larger national and worldwide problem of winning this war and preserving the sacred principles of the American form of government.

The war today is unique among all the wars in history in that production of the munitions and other tools with which to fight is its most important factor. No longer are wars to be won by battlefield heroism alone, no longer can the traditional skill and matchless courage of the American soldier sweep us to victory unaided by production.

This is a war of planes, ships, tanks, guns, and explosives which require tremendous amounts of raw materials and an infinite amount of skill and speed in their manufacture. This is a war in which the industrial worker — the soldier of the home front — is equally as valuable and equally as necessary as the soldier of the battlefront. And his health and safety and morale must be studied just as carefully and treated with solicitation equal to that for our fighting men.

Our military leaders have been among the first to recognize the growing importance of the home front in modern war — and through their splendid system of Army-Navy E Pennants, and their decoration of individual workers who have shown exceptional talent and efficiency, our industrial managers and workers have achieved a place equal in honor to our soldiers in the ranks of our embattled nation.

As Governor of Illinois and Chairman of the State Council of Defense, charged with the responsibility of heading the Civil Government of this State during this period of war, and duty-bound to do everything possible to aid the war effort on the Illinois home front, I particularly welcome every opportunity to discuss a subject as vital to our success in this war as industrial health.

Military medicine defines its prodigious task in two words: Prevention and Restoration. Prevention has the high objective of keeping every soldier in action. Your task is to do the same for the production worker, without whose continued efficiency our soldiers, sailors, and marines would go unarmed.

I am informed that in the present day conflict it takes approximately ten men behind the line to keep one man, fully equipped, on the fighting front. Confronted by an emergency

expansion program in all fields, our industry has naturally found it difficult to attain a well-organized health program. But so important is the welfare of the worker to the volume of our war production, that your first concern, after enlarging your factories and establishing your production lines, should be for the health and safety of your workers. A general does not waste the strength of a well-trained army by exposing his men, improperly equipped, to enemy fire. Every American soldier, and every American worker is too valuable, too important to be needlessly sacrificed by poor leadership, carelessness, or ill-health.

Realizing the immensity of your problem, cognizant of the fact that the first and foremost objective of every industrialist, or factory manager, must be the actual production of the tools of war — no matter what the cost — your State Administration feels duty-bound to assist and encourage you in the attainment of those health objectives which are also a vital necessity to the continued flow of production.

We feel we can best serve you as a scientific, fact-finding agency, rendering advisory services and educational facilities. In addition, we can act in the role of a clearing-house of information. You must have the complete, wholehearted co-operation of all of you, however, if success is to be assured.

Illinois ranks as the third largest industrial State in the United States, and the largest in the Mid-West area. Recent census figures reveal that three and three-quarters million of the adult population of this state are gainfully employed, of which one and three-quarters million persons are in industries in which the environment presents potential hazards to health and well-being. Today, with the Mid-West serving as an arsenal, as well as a bread-basket for the Allied nations, with Illinois in particular emerging as the site of many of our greatest, most important war production plants, industrial hygiene has become one of our most serious problems.

Your State Administration is interested in the health of all the citizens of Illinois, whether they are employed in the factories or the shops, the city or the rural area, the home or the school. Illinois recognized the need for industrial health activity as far back as 1922, and at that time one medical officer was assigned to the field to visit and inspect industrial establishments.

In 1936, a further step was taken when the State Division of Industrial Hygiene was created as a branch of the Department of Public Health. Your present administration is interested in further expansion of this health program to meet the increased demands arising from the State's all-out war effort.

With the mobilization of man-power and industry, countless health problems are unfolding. While many of these are known and can be prevented, there are other industrial operations and processes which are new, or in their infancy, and will, as time goes on, add to the many dangers to the safety, health, and well-being of our production workers. War-time working conditions differ considerably from those of peace-time, and that is why the need for action, enlightenment, and co-operation between industry and health authorities is urgent.

Industry wrote a glorious page into American history when it grappled successfully with the problem of physical safety. How well the job was done — and is still being done — is told in the declining accident rates. Illinois industries have been in the vanguard in this achievement, and they can achieve the same distinction in helping to solve the health problem.

The factory owners and managers deal not only with machinery and materials, but with men and women as well. The worker brings to the general physical equipment of the factory his own personality and his own bodily machine. Upon the efficiency of the worker depends the speed and quality of production, but attention is too often given to the machine while the worker is overlooked. You cannot expect a machine to operate at one hundred per cent efficiency if the man who operates it is only fifty per cent physically equipped.

Although I believe the industry of our State has had a good health record in the recent past, the war is forcing many changes which constitute a positive health menace.

For instance, many of our factories are now working on war contracts which require them to use materials with which the management and the employees are unfamiliar. This unfamiliarity with the materials used can be dangerous to the worker's health and safety.

Another example is the type of worker industry is now employing. Because of the draft, nearly all the perfectly healthy young men of military age are going into the armed forces. This requires industry to employ many handicapped workers, and many more aged or infirm men. Necessarily, also, many who lack experience must be hired to fill the gaps caused by rapid expansion and the draft. The dangers inherent in these conditions must be met by proper foresight, planning, and an adequate health program with stress on preventive medicine.

I should like to be able to state otherwise, but the State Division of Industrial Hygiene reports that the plain, unvarnished truth is that there is much industrial ill-health. I am told that few large plants throughout the nation have more than ninety per cent of their workers on the job any one day in the week, and the principal cause of this absenteeism is illness.

The true cost of illness is almost incalculable. While the immediate cost to the worker may be figured accurately enough, hardly an illness occurs that does not involve much more than a loss of wages. A worker becomes ill and is absent from his duties. His wages cease at a time when he incurs the unusual expense of a doctor. The employer loses production and overhead, and the war manufacturing program is slowed down. Besides this financial loss to the worker and employer and the serious damage to the national war effort, the worker, because of his illness, has a potential grievance against his employer. This deals a further blow to morale and strains the relations between management and labor whose wholehearted co-operation is a vital necessity in these times.

It is obvious that the employer is not responsible for many of the ailments from which workers suffer, and there would be little reason for interesting himself in the problem if the worker would look after his own health, or if the community, as a whole, did its part. But, under the present circumstances, no other course is open but for the employer to shoulder some of the responsibility.

Industrial management fights loss as the medical profession fights disease. Loss is clearly one of the diseases of industry. It increases costs, decreases production and retards employment — and one of the greatest sources of industrial loss is ill health. Each year America, with its well-managed, carefully maintained, highly-efficient industrial machine, takes a loss of ten billion dollars caused by illness and accidents. This annual loss is serious enough in peace time, but in time of war it would be positively criminal to allow it to continue without attempting to reduce it.

I am happy to report that the majority of Illinois industrial establishments are giving their fullest co-operation to your State Administration in the fight to improve and safeguard the health of our workers. And judging the future from the past, I know that you will continue to co-operate in rapidly expanding programs.

In meeting the new threats to health that are daily arising as the industry of our State gears itself wholly to the war effort, you necessarily have often had to resort to makeshift methods. But it is my sincere hope that when this great war is over, and victory, at last, is ours, you will retain your revitalized industrial health programs in the peace which follows.

We are approaching the dawn of a new age, a happy age, an age which will be born as soon as the enemies of freedom and peace are stamped out. It will be an age in which the physical health and well-being of American men and women is going to receive more attention than it has in the past — because this war, if it has taught us anything, has taught us that the healthy and the strong are able to contribute the largest share to the winning of a battle, or the making of munitions. It naturally follows that the healthy citizen is a better citizen. Free, healthy people are happy people. They are tolerant of their neighbors and those who differ with them. They love America and the American way of life, and they will cling dearly to any reforms or improvements which may be developed to safeguard health, whether they arise from governmental or private sources.

One of the greatest single contributions that you in industry can make toward the happiness and general welfare of this great country of ours is to seek to improve and safeguard the health of your workers. It is to your advantage as well as theirs, and you will find your State

Administration ready and willing to assist you in that important work in every possible way.

We are working together in war, and we shall continue our close co-operation in peace, because that is the spirit of America, land of liberty, equality, and tolerance. From that spirit springs the bravery and self-sacrifice of our boys on the battlefield, our tremendous and continually increasing production of armaments, and that unity and co-operation of free American soldiers and workers, and free American industry and agriculture which makes America the most powerful nation and its people the most irresistable, unconquerable fighting force on earth.

THE URGENT NEED FOR BETTER LOCAL INDUSTRIAL HEALTH ORGANIZATION

C. M. PETERSON, M.D.,

Secretary, Council on Industrial Health
American Medical Association

CHICAGO

Physicians and hygienists who have wide industrial experience believe that we possess enough information to make nearly every job safe, healthful and more productive. The equally firm conviction prevails that no nation engaged in modern warfare can tolerate unnecessary wastage of industrial manpower from preventable accident or disease. If these assumptions are correct, our immediate problem as employers, employees and professional people is to come to some agreement about how we can apply our knowledge of safe and healthful industrial procedure widely and yet with greater directness than has been the case formerly.

We have excellent evidence that competent industrial medical service is good business — it pays dividends in many ways. But before going farther, we had better describe briefly what we have come to regard as the essential elements in dependable health service for industry. They are:

1. A competent physician who takes genuine interest in applying the principles of preventive medicine, surgery and hygiene to employed groups and who is willing to devote regular hours to such service in the working environment.

2. Industrial nurses with proper preparation, acting under the physician's immediate supervision or under standing orders developed by him or by the committee on industrial health of the county medical society.

3. Industrial hygiene service directed at improvement of working environment and control of all unhealthful exposures, to be provided by physicians and others with guidance and assistance from the specialized personnel in state and local bureaus of industrial hygiene.

4. A health program which should include:

a. Prompt and dependable first aid, emergency and subsequent medical and surgical care for all industrially induced disability.

b. Health conservation of employees through physical supervision and health education.

c. Close correlation with family physicians and other community health agencies for early and proper management of nonoccupational sickness and injury.

d. Good records of all causes of absence from work as a guide to the establishment of preventive measures.

Now if all interested parties are to arrive at good mutual understanding of the objectives of industrial medical service, it seems to us in the medical profession that three steps must be taken:

1. We must determine to what extent employers are interested or willing to support one or more of the elements in the list of services already described. Fortunately, we have the example of successful administration of medical supervision in many plants. In the past, to be sure, they have been mainly large corporations but we do have reasonable assurance that, given a kind and amount of service they can support, smaller plants will avail themselves of the benefits of preventive industrial medical service. They may do so singly or in groups and with limited or full services. The matter of creating interest and support, however, should not be an obligation of medicine alone, but one which can be jointly undertaken by employers and doctors in many industrial communities.

Presented at Chicago Conference on Health of Industrial Workers, Palmer House, Chicago, Jan. 13, 1943.

2. Next, we must convince the employee that he stands to gain considerably wherever industrial medical service is competently and fairly administered, and that his own and his employer's interest should be almost identical in this respect. We must also persuade the worker to recognize the necessity for guarding his own physical welfare away from work as well as on the job. The finest working conditions avail little if co-existing bad housing, poor nutrition and improper use of leisure time negate an employer's efforts to make his working force healthier and happier. Here again the medical profession feels that although medicine can accept considerable responsibility for suitable programs of health education among the working population, results of lasting value will occur only if employees themselves, through their own efforts, make a real contribution.

3. The third and most direct responsibility rests squarely on the medical profession. Here again we have important steps to take:

a. We must do what we can to keep physicians, nurses and hygienists already placed in industrial service where they are in work which they are trained and prepared to perform (respecting, of course, the preeminent requirements of the military services.)

b. We must, through intensive postgraduate education, prepare our membership as a whole to be able to respond to increased demands for industrial health service.

c. We must make the best and most efficient use possible of local medical and health facilities through good local organization.

Organization. — The Council on Industrial Health, which I represent, is actively engaged in organizing committees on industrial health in the state medical societies and in all county medical societies located in areas where such a step is justified. We have recommended that the county medical society committee should contain representation from industrial practice, private practice, and the local health unit since these are the essential medical groups needed to supply the service. Obviously, the committee should understand the components of adequate service and be prepared to adjust them to existing medical and public health facilities and methods of community medical practice.

The committees, with local variations, will probably proceed as follows:

1. The committee in the county society should request instruction from the committee on industrial health in the state medical association and from the state division of industrial hygiene. Preferably, a preliminary conference should be held with representatives of these two agencies to establish:

   a. The lines of relationship and responsibility already existing between government, industry, labor and the medical profession.

   b. The principal industrial health problems of the community as a basis for remedial action.

   c. The proper organization and employment of local medical and health facilities.

   d. Supplementary services which can be called on from sources outside the community itself.

The needs of small industry should be particularly stressed.

2. The names of all physicians now serving or willing to serve in industry should be determined. These physicians should be invited to attend a meeting at which the results of the preliminary conference just described can be reported and general details of the program presented for discussion and adoption.

3. Conferences should be held with other essential professional groups, particularly industrial or public health nurses and industrial hygienists, in order that dependable arrangements for services provided by these groups may be made.

4. The county medical society committee should then request a conference with the executives or a representative committee of the local manufacturers' association, chamber of commerce or both to describe the program and to determine how the

medical profession and the local health department can accelerate and improve production through appropriate health activity. Specifically, the following items should be discussed:

a. The essentials of industrial health service as outlined.

b. The health and economic benefits of such a service.

c. Methods of supplying this service.

d. Probable cost.

The committee of the manufacturers' association can well be asked to act permanently as adviser to the county medical society committee.

5. Active cooperation should be secured from local labor organizations both in respect to the conduct of medical services in the plant and to establish a program of health education in the community. Health education should emphasize particularly non-occupational factors which are of importance to the health of workers — nutrition, housing, proper use of leisure time, recreation and other related activities. The committee representative of local labor organizations should be requested to assume a considerable share of responsibility for the health educational aspects of the program and should regularly act in an advisory capacity to the committee on industrial health of the medical society.

6. The next procedure should be an open meeting conducted jointly by the county medical society and the local manufacturers' organization or chamber of commerce, to which employers, physicians, other professional agencies, representatives of labor and, in fact, the community at large, can be invited. This meeting will provide means for promoting the program widely throughout local industry.

7. Following preliminary organization, the activities of the county medical society's committee on industrial health will fall mainly under four major headings:

a. Investigation of local causes of lost time in industry as a basis for necessary remedial service.

b. Coordination of community industrial health facilities.

c. Frequent education of the public about the benefits of an industrial health program.

d. Continuous education of the medical profession as a means for elevating standards of industrial health service.

In all other ways the committee should exercise that degree of initiative and leadership which will properly represent medicine's responsibilities and opportunities in this important field.

In these and other ways, we hope that industrial health problems can be solved through sound community organization. The program is an urgent one if it is regarded as desirable to develop it on a voluntary basis. On that basis the service itself will persist and grow on its own merit — based on individual plant needs and the ability and initiative of individual physicians to meet them. In any event, our present faith rests on the county medical society plan as an expression of leadership by medicine in a field which represents a great responsibility during these trying days and an unequalled opportunity for lasting and beneficial service.

THE MEDICAL CARE OF EXECUTIVES

WALTER C. ALVAREZ, M.D.
Division of Medicine, Mayo Clinic
ROCHESTER, MINN.

Today, with the world gone mad and the rapid production of munitions so essential to an early and successful termination of the war, one of the most useful things we physicians can do is to take good care of those all-important men, the executives, engineers, architects and other brain workers who keep millions of workers supplied with blueprints, tools, materials and technical training.

I need hardly remind you that a good executive is not easy to find or develop. To begin with, the necessary endowment of a fine brain, great energy, great endurance, ambition and willingness to assume responsibility, good judgment, skill in handling and leading men, and a tend-

Read before the Conference on Industrial Health (under the auspices of the American Medical Association), Chicago, Illinois, January 13, 1943.

ency to deal fairly with them are rarely found combined in one person. Then there must come the years of technical training and experience that are needed to fit a man for a supervisory position in modern industry. Evidently every able executive in industry today is a tremendous asset not only to his company but to the country as a whole and every effort should be made to keep him fit and to prolong his period of useful life.

That something needs to be done along these lines can be seen from the fact that the mortality of executives and other overburdened brainworkers, and the incidence of serious degenerative diseases among them, appear to be considerably higher than they are among men who work with their hands. In a recent study of 176 middle-aged executives of one company, Habein found that 13 per cent had a decided increase in blood pressure, 3 per cent were already suffering with angina pectoris, 3 per cent had gout, 2 per cent had diabetes and 18 per cent were suffering from duodenal ulcer. Other studies have shown that physicians, who work hard much as executives do, tend to die five or six years before their time, usually with diseases of the heart and arteries; and as one should expect, the more successful and hardworking the man, the shorter is likely to be his life.

Some may now ask, "But how can mental work, emotion and fatigue produce such definite and eventually fatal injuries to the body's tissues? What is the mechanism involved?" We physicians do not know exactly, but a new field of research in what is called psychosomatic medicine has been opened up, and already many interesting discoveries have been made. Already it is known that disturbing emotion leads to the formation in the body of a number of powerful druglike substances which produce troublesome symptoms. Emotion can also produce spasm in small arteries, and with this there can go a dangerous impairment of the blood supply to parts of the brain, heart, kidneys, stomach or joints. But whatever the mechanism involved, there is no doubt today that worry and mental strain can give rise to illness or can bring about flare-ups in the course of diseases such as angina pectoris, high blood pressure, peptic ulcer, arlesions and irritation of the bladder.

Sometimes as I sit in my office talking with men and women whose nervous system is cracking under the strain of modern life and its almost constant overload of mental activity, my mind shoots back to the days of my boyhood in Hawaii when I watched a primitive people earning their living happily with only a few hours of effort a day, and I think how many of the illnesses of our present society are due to the inability of our minds, designed originally for the small needs of an easy-going savage in a village, to cope with the exceedingly complex problems of today.

A few thousand years ago, when man's tools consisted of a few pieces of stone and his ken was limited to the valley in which he lived, already his intelligence and good sense were not equal to the task of either governing himself or keeping peace with his neighbors, but now that his tools and weapons are myriad and exceedingly powerful and his business interests and ken world-wide, he just has to make a mess of things because even the best brains of his leaders can hardly grasp, let alone cope with, all the complex problems that are constantly crowding in over the telephone, the ticker and the radio.

But some of you may say, "Are you not maligning the civilized man of today? On the average, hasn't he a much better brain than that of, let us say the average Polynesian from the South Seas?" The probability is that intelligence tests would show that the average American ranks higher than the average Polynesian, but I doubt if the difference would be large, and in both groups all types of persons would be found with an intelligence ranging from very good to very poor. Thus, in 1918, in our white native-born draft, one in four at the lower end of the scale was so ignorant or illiterate that he had to be given the Beta test designed for children or illiterates, and at the upper end of the scale only one in four had gotten as far as first year high school. All of the comparatively few highly intelligent men at the top of the scale became officers, technical assistants and clerks.

Evidently, then, there is only a small percentage of men in the nation who have the type of keen brain that can grasp the big problems of modern science and industry. This paucity of good brains in the community is bad enough;

what is worse is the fact that even these good brains often are unable to stand for long the strain of constant and heavy use. Like the brains of savages, they need more rest and peace than they get in modern industry.

The average man today, if he were to think of it, would assume that in the scale of evolution, he is far removed from his brutal forebears in the ancient world, but really he isn't. He is only some hundred generations removed from Moses and Joshua, and when one reads the many letters that have come down to us from that day, one finds that human nature hasn't changed much. Until the coming of Hitler, the world was steadily improving, largely because after centuries of struggle against tyrants, the good kindly people everywhere, the better class of business men and scientists and inventors had secured freedom to think, to talk, study and work; slowly they were gaining enough political power to keep their silly kings and politicians from leading them into foolish wars of aggression.

Obviously, the great difficulty with the world today is that weapons of tremendous power, designed and made by the few able men at the top, have been put into the hands of the many stupid ones and the ones who still have the brutal, marauding tendencies of their ancestors. In Europe, robber baron ancestors are perhaps some ten generations back, but in many other parts of the world men of that type are only a generation or two removed, and this is a fact that all thinking men must keep in mind, especially when the armistice comes. We of this world are like small children who have been given a hatchet or a revolver.

A few years ago, while visiting my old home in the Territory of Hawaii, I was so impressed at seeing the tremendous changes in the mode of living that have come there in but two short generations. Thus, one evening I watched a native musician using a steel guitar into which was incorporated an amplifying system of radio tubes. What I couldn't get over, as I listened to this man using one of the greatest inventions of the physical laboratory, was that fifty years before, his grandfather was living in a grass hut and going around naked except for a breech cloth. I knew this because when, as a child, I went with my parents to Hawaii, we lived next door to him.

How easy life was in those days. Occasionally the old man worked a while in his taro patch, occasionally he and his son pounded the cooked taro into a paste and occasionally he went with his family down to the sea to catch fish. It never occurred to him to gather more food than he needed for the day, because if he did, all that would happen would be that his relatives and neighbors would come and help him eat it up. And so, much of each day was spent lying in the shade, dozing or chatting with friends. That is the sort of easy-going life I found again when, later, I went to Mexico. Everywhere primitive man rests often, and he exerts himself only occasionally as when hunting, fishing or fighting. His brain, and that probably means our brain, would seem to have been built for this sort of interrupted labor.

That is why nervous breakdowns are so common in the United States today. Here a busy executive drives hard at his work from nine in the morning until ten or later at night, and he does this six days out of the week. With the help of telephones and two-way speaking systems he keeps in constant touch with scores of men, not only in his plant but in Washington, New York and everywhere he has interests. He talks business at luncheon and in the evening he may take home to dinner several men whom he wishes to make into influential friends. Finally at midnight he may dash for a train or plane which will take him to a conference some 500 miles away.

And on those few occasions when he does go out to play a little, he will probably get too tense over that; he will play golf as if he had $100 up on each hole and in the evening he may play poker for big stakes. Was his brain built to stand such constant activity? I am sure it was not and certainly it often comes to grief trying to stand it.

The other day, I saw in my office the vice president of a big manufacturing corporation — a stockily built man of forty who was beginning to crack up nervously. He had been getting "jittery" spells; he couldn't sleep, he couldn't sit still, he couldn't concentrate well and he felt at times as if he was going to faint or lose his mind. I asked him when he had had a real vacation and he said he never had had one. Twenty-four years ago, as a boy, he started as a helper in the foundry and ever since he

has worked all day to earn a living and half the night to prepare himself for the next move up the ladder to success. I said, "You have got to take a rest," and he answered, "How can I? At a time now when I am driving my subordinates without mercy how can I ease up. If I did, I would feel like a slacker." But when he told me of his great responsibilities in getting out millions of dollars' worth of parts essential to the building of battleships, I insisted that it was his duty to his country to take a rest so he wouldn't go on and go to pieces completely. If he were to crack now, where on earth would his company find another man with all his technical training and skill? I told him also that his vacation would have to be a restful one and much of the time should be spent in lying around and catching up on his sleep. I pointed out to him that since he couldn't very well take off a month at a time, he just had to start running away every so often for a few days. Such short rest periods would bring much less disruption to his work than would a long period.

I asked the man if he had enough assistants and if he had learned, like a good executive, to delegate authority to them. Many men in executive positions break down because they cannot learn to get other men to do part of their work. Many a time when the president of a corporation sees that a valuable executive is breaking under the strain the best thing he can do is to supply him with an assistant or two. I read once that a president of a telephone company liked to raise an executive's salary whenever he came into the man's room and found him sitting apparently idle. His idea was that that man evidently knew how to get others to do the work while he sat and planned for the future. I remember Dr. W. J. Mayo's once saying to me that he was sure he was of more value to the clinic while sitting on the deck of his yacht than while at his office seeing patients. On the boat he had time to think ahead and plan and prepare to meet the problems that were sure to come with changing economic conditions and new legislative trends. Obviously, if an executive lets himself be driven every minute of the day by the problems of the moment, his department or his company will soon start dropping back in the race.

BAD HABITS OF EXECUTIVES

As Doctor Habein pointed out in his study of the lives and living habits of executives, they not only work too long hours in the office but most of their time outside is taken up with talking shop and making contacts which will be helpful to them in their business. The usual executive is a man who lives intensely and lustily and does strenuously whatever he sets out to do. Often he eats too much and this tends to bring disaster. It fills the blood with poorly burned toxins, it adds to the load on the heart and kidneys and it favors the development of degenerative diseases such as hypertension, gout, diabetes and arthritis.

Most executives, because of their nervous tension, tend to smoke too much. Doctor Habein found that 62 per cent smoked over a pack of cigarettes a day, 27 per cent smoked two packs and 21 per cent smoked more than two packs! A few years ago, Raymond Pearl, the world's greatest authority on longevity, published statistics to show that between the ages of thirty and fifty years, one out of five heavy smokers dies before his time, which suggests that heavy smoking is even more harmful than is fairly heavy drinking. A few executives drink a little more than is good for them but most of them are moderate because they know so well that if they drink too much they will no longer be clearheaded and efficient.

Doubtless many waste a great deal of nervous energy each day in "flying off the handle" at employees and others. This sort of thing is very tiring and it injures the body, not only of the man who does the bawling out, but of the poor unfortunate "bawlees" who are left hurt and shamed and rebellious. I often tell executives of my experience once with an extremely choleric old millionaire who when he got good and angry with a man sometimes threw him out through the glass door of his office. When I was able to show him that in one of these tantrums his blood pressure jumped from its usual 170 mm. to 230 mm. of mercury he became alarmed and promised to mend his ways. Later, his secretary told me that the old gentleman had done remarkably well until one day

when he saw that a man was trying to cheat him on a deal. His face turned red and he started to go into one of his rages, when suddenly he stopped and said to the offender, "Quick, get the hell out of here, — I can't afford to get mad at you!" And so, ever since, I have said to short tempered patients, "You can't *afford* to get angry at anyone. It is too expensive a luxury."

It is a curious fact that Habein found that 7 per cent of the 176 executives studied had syphilis. This is much higher than the figure one would expect to find in a group of average American educated men. It would seem that the executive with all his tremendous energy tends to get into a certain amount of mischief which sometimes isn't good for him.

DANGER SIGNALS

Now how is a man to know when his nervous system is beginning to break down? What are the danger signals? Common symptoms are a sense of impaired health and energy, getting up tired in the morning, wearing out by noon, feeling a need for forcing the brain or feeling a sense of tension in the brain. Usually there come insomnia, increasing irritability, and impatience, ill humor, and a desire to snap peoples' heads off. Soon it will be hard to tackle the morning's mail and the making of decisions will be put off. The man will begin to coast on his job. It will be hard to read through a long report or to remember what was read. It will be hard also to sit through a conference and perhaps impossible to sit through a theater performance. Then may come alarming "jittery" spells, when the man may feel faint, dizzy or chilly, or uncertain of himself, or he will break into a sweat or will feel his heart throbbing wildly. He may become overly emotional so that he tends to weep.

A man with such symptoms should stop immediately and get a rest. He is so close to the edge of a nervous breakdown that any little cold or accident can easily take him over the edge and into a state from which he will find it hard to recover. As I say to such a man — the red lights are up and to run on through them can only bring a wreck. Besides, when a man is so tired, he is of little use in his office, and he might just as well be off somewhere resting.

OF WHAT SHOULD AN EXAMINATION CONSIST

Before going on a vacation it would be well to go to a good physician and have an examination made to rule out the presence of some other disease besides the fatigue state. A good doctor can tell the minute he hears the story that whatever else the man has, he has the beginnings of a nervous breakdown, but still he might have high blood presssure, kidney trouble or a cancer starting somewhere. Usually after taking a history and making a physical examination the physician will order a urinalysis and an estimate of the hemoglobin, or red coloring matter of the blood. If this should show that the man is anemic, the blood cells will be counted and studied; a Wassermann test for syphilis will be made, and perhaps what is called a measurement of the blood sedimentation rate. When this figure is low it is very reassuring because it tends to rule out the presence of cancer and other serious illnesses. A roentgenologic study of the chest is now a routine in many offices because it can quickly rule out the presence of tuberculosis or cancer of the lungs and it will tell several things about the heart. If there has been any question about the heart an electrocardiogram will be made.

In men past forty, it is well to see that the prostate gland has not enlarged enough to obstruct the outlet of the urinary bladder. If the blood pressure has gone up, an oculist should be called to look at the little arteries in the back of the eye. If he finds them hard and narrowed and beginning to rupture, the outlook for the man's future will be bad.

If the blood was found to be thin and anemic the stomach and bowel will have to be x-rayed so as to rule out the presence of cancers or ulcers. Any other clues which may happen to turn up during the course of the examination will, naturally, be followed out to the end. The sicker the man, the more extensive and careful the examination may have to be. In the case of older men who have broken down rather suddenly one must think of the possibility that there was a little stroke. Often then the man's grooming suffers and he will start going out with his clothes spotted and unpressed. Such a man must immediately be retired because his days of usefulness to his company are over and he will never "come back".

THE PHYSICIAN'S ADVICE

Granting that nothing serious has been found during the examination, the physician's advice will depend on what he has been able to learn of the besetting sins of the patient: sins of overwork, overeating, oversmoking, overdrinking or too strenuous playing. They say that the secret of prescribing a diet is to find out what the man likes and then take it away from him. Fats and sugar are probably the worst enemies of the man who tends to overeat and gain in weight. There is evidence now to show that some substances derived from fat accumulate in the blood and injure the arteries. If the patient smokes to excess and really wants to safeguard his arteries and prolong his useful life he should give up tobacco. It is useless to talk of tapering off because rarely can a heavy smoker do this; he must either quit or else go on smoking his head off.

The man whose heart muscle is not as good as it was must walk and live at a slower pace. Nature has given him shortness of breath or a pain in his chest as a signal to tell him when he is going too fast. If he is suffering with insomnia he may, for a while, have to take a nightly soporific. In my experience such drugs are often very useful, and if the patient has any sense at all there is no danger of habituation. The drugs commonly used today are not at all related to opium or morphine.

Sometimes the doctor can do much for an executive by treating his wife also and talking over with the two of them their grievances. It is unfortunate today that in so many cases "success" brings much unhappiness to both the man and his wife. Both feel lonely and dissatisfied, the man because his wife has not kept up with him as he has educated himself and grown up in the world; the wife because she sees so little of her husband and rarely has any chance to really live and play with him. I often think how fortunate is the eminent man of fifty who in his poverty-stricken youth had enough sense to pick a fine type of girl from a good family, a girl who would grow with him through the years and at fifty would still be young in spirit, with a good figure, an attractive personality, *savior faire,* and a good education, which would fit her to be not only a good helpmate and companion but a fine gracious hostess to meet and entertain his friends and business associates. Too often as he grows and educates himself, gets culture and becomes a leading figure in his city, she remains mentally and culturally much as she was when he married her. But even when the wife has grown mentally and spiritually, she often is lonely and unhappy and even thinking of divorce because for years he has been too engrossed in business to pay much attention to her. When the children are married and gone she feels that her work is done, and the man has no further need for her. The conflicts and unhappiness that come out of this sort of thing can be very disturbing to the able executive who needs every bit of nervous strength he has for his work.

Some times life goes sour also for the man and he begins to wonder if he has lived foolishly, wasted his life, missed love and paid too big a price for his money and his vice-presidency. Or he sees the position he has long coveted going to a younger man, and then the steam and the zest in life go out of him.

I shall never forget the sadness in the face of a broken looking man who consulted me a few years ago. Coming right to the point, he said, "Doctor, the other day I had my sixtieth birthday and it suddenly came over me that I have made a horrible mess of my life. All I have gotten out of nearly fifty years of the hardest sort of work are a big business and a couple of million dollars. The money has given me no pleasure because I never had time to spend any of it. Today I wouldn't know how to spend it. Because I neglected them so badly my wife and children left me long ago and went their separate ways. Today I am utterly lonely; I have nothing that gives me pleasure or warms my heart. I think now I would trade all my wealth for the knowledge that somewhere there is a woman who would be worried if I came home late to dinner. Look me over, please, and tell me if you think I can last long enough yet so I can perhaps learn really to live."

I thought of what Oscar Wilde used to say, that some of us get what we want in this world and that is our punishment. I remembered also a cynic's statement to the effect that the American is an animal who works incessantly to save money for a day when he'll retire and play, but before that time comes he gets a nervous break-

down and dies. I thought of Barry's remarkable drama called "Holiday", the story of a young man who, from early boyhood, had had to work so hard to gain a living and an education that he'd never had a chance to stop and wonder where he was going and why. Then, suddenly some money came to him, and he decided to use it for a holiday: a year in which he would take time to sit down and try to figure out what he should try to get out of life, and how he could spend it to the greatest advantage. How few of us have even thought of doing such a thing! We have been too busy doing the day's stint and too tired after getting home ever to stop and wonder if there isn't some way in which we could live more sensibly, use our life to better purpose, and perhaps to do what we'd love to do and thereby find more contentment and happiness.

During this war we must all work to the limit of our strength without complaining, but after the war is over, let us all do more thinking about life and how it might better be lived. Let us try to run the job instead of letting it run us.

WHAT CAN WE DO TO KEEP EMPLOYES AT WORK?

C. D. Selby, M.D.
DETROIT

Under the impetus of the war industrial medicine, like industry, has undergone conversion. Able-bodied young men were going into the military forces in large numbers, industries were expanding rapidly, and manpower shortages appeared. It was necessary to employ women, over-age men, and physically substandard people. Not considered to be important when labor supplies were ample, industrial absenteeism was suddenly projected into the limelight — and the proportion which is due to sickness has been found to be quite impressive.

Accordingly, industrial physicians have converted their programs (1) to provide measures for the safe employment of workers, including the women, over-age men, and the handicapped; and (2) to reduce the great number of man-hours being lost from production of war materials by sicknesses and injuries which are independent of employment, as well as those which "arise out of and in the course of employment."

While this conversion has been somewhat functional, it has been chiefly in the objective of industrial medicine. Heretofore, except in a few progressive industries, this was to control disabilities resulting from occupational injuries and diseases. Now it is to maintain the health and persons of the employes at the highest possible production level.

The pre-employment examination (for exclusion of the unfit) has been changed over to the pre-placement examination (for selective employment of substandard as well as whole and healthy people). The time-tried functions of industrial hygiene control, care of occupational injuries and diseases, temporary treatment of minor ailments and emergency sicknesses, medical consultations, health education, and record keeping, continue to be useful and important as heretofore.

Methods for relieving workers of their worries, maintaining their proper nutritional status, and preventing fatigue are being developed — and studies of sickness absenteeism are coming into practice.

Realizing that a great many doctors, not directly connected with the industries, treat sick workers and consequently are influential in determining absenteeism from sickness, a more understanding relationship between the profession and industrial medicine is being cultivated.

Industrial physicians were prepared for these changes before the war. The necessities of war production and the war manpower shortages incident thereto made acceptance possible.

In measuring the effectiveness of the modified program, studies of sickness absenteeism take priority. In locating special problems in health maintenance and pointing to possible solutions they are invaluable. Illustrating their use are comments on a study of the 1941 experience of a large employe population scattered among 104 manufacturing units located in 46 cities in 13 states. Because of inherent inaccuracies in the reporting of short absences, these were limited to disabilities which exceeded 7 days. But in

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figuring lost time all calendar days from inception to termination of disability were included, except in a few cases which exceeded 92 days. (The data were obtained from insurance reports and the coverage terminated in 92 days).

It should not be inferred that absences of 7 days and less are unimportant. On the contrary, they contribute substantially to the aggregate manpower losses — and sicknesses cause a substantial portion of them.

Absenteeism in General Motors' war plants is about 50% greater than during peacetime automotive days but the daily number of workers absent has been leveling off since September. The absentees who are off less than a week now amount to about 3%, compared with 1½% in peacetime. Absences from sicknesses of more than a week are now about 1%, representing little change from normal. Most of the short absences occur among new workers. They are receiving a great deal of attention from management and labor unions as well as the medical profession, but as an index of the effectiveness of the industrial health program they have little value.

In these studies there was no effort to obtain rates for the different age groups or occupations; for practical purposes only the highlights are essential. Both men and women varied from youth to 55 years and over. They were doing anything that was permissible under the law and they could do efficiently and safely. About one-eighth of the employes were women, slightly less than 20,000 in number. Since then, their number has increased considerably and in some units they now comprise as high as 75% of the workers, in others about 50%. As the employment of women is increasing and industrial physicians have not had a great deal of experience with their health problems, it is appropriate that their sickness absences should be considered in relation to those of men.

The over-all frequency rate of sickness absences in the women varied greatly in different communities and in different plants, from a low of 195.7 per 1000 to a high of 548.3, with an average for the entire female population of 320 per 1000. The average time lost per case varied from a low of 34 days to a high of 60 days, with an over-all average of 49 days per case.

These rates become significant when compared with the like rates of the male employes, which varied from a low of 38.1 per 1000 to a high of 144.5, with an average of 89.1 per 1000. The women's average rate was 320 per 1000. The time lost for male employes varied in different localities from a low of 25 days per case to a high of 57.8 days, with an average of 31.4 days per case. The average for women was 49 days per case.

Incidentally, the non-occupational accident rates, which were not included in the above, were for women, 19.9 per 1000; and for men, 13 per 1000. The time lost averaged 43 days for the women and 37.8 for the men.

Reduced to a simple conclusion these figures indicate that women are more apt to be absent because of sickness than men, and that they lose proportionately more time. Why does this occur?

If the specific causes for disability in women are analyzed and compared with the like causes in men, one outstanding reason becomes apparent. Their disabilities from the respiratory infections are over twice as high as those of men — in fact, almost as high as those of men from all causes.

The tuberculosis rate in women. It was twice as high in this study. Strangely enough, their pneumonia rate was one-half of that for men. Of course, the respiratory diseases are often epidemic and some localities show much higher rates than others. One notable exception was in the city of Rochester, New York, where the rates were quite low. Even so, in this locality the rates for the respiratory diseases in the women were much higher than those in the men.

So — one of the important problems with respect to sickness absenteeism concerns the prevention and control of respiratory diseases in women. What can industry do about it?

In an effort to obtain some information on this problem, the doctors who serve the employes of the 104 manufacturing units were canvassed. A composite of their recommendations is interesting, though somewhat conventional. They were fairly unanimous in recommendations as to rest, exercise, diet, clothing, temperature, regular habits and avoidance of excesses, and isolation of cases. There is anything but unanimity of opinion with respect to the use of cold vaccines and vitamin capsules.

What one doctor recommends as the five best methods is typical:

1. Regular and sufficient hours of sleep.
2. Regular meals consisting of proper foods.
3. Sufficient and proper clothing for changing weather.
4. Avoidance of crowds, congested places and direct contact with persons who have respiratory infections.
5. Correction, so far as possible, of contributing disturbances such as sinus infection, bad teeth, infected tonsils, and constipation.

Another doctor adds: "The defective or weak employe must be carefully placed so that he is not unduly and excessively exposed to temperature changes, variations in humidity, drafts, dusts and vapors." He also suggests: "An educational program in personal hygiene, emphasizing such common discourtesies as coughing, careless disposal of nasal secretions, explosive talking in one another's face, and spitting on the floor and in the machine tanks."

The corollary of the advice that persons get regular and sufficient hours of sleep is the admonition that they avoid excesses both in recreation and relaxation. One doctor voices the opinion of a large number of the medical group when he says: "The rest factor is even more important now, as I notice a tendency of a great many here to frequent night spots." And he continues by saying, "I know, because they come in for aspirins the next morning."

Share-the-rides, overcrowded busses and streetcars, congested locker rooms and eating places in the plants and out, make it difficult for workers to avoid crowds and sources of infection inherent in crowding. So another doctor recommends "consideration on the part of all who have colds." Of course he is thinking of those who spread infection by sneezing and coughing.

One doctor sought to effect some control over this problem by keeping the coughers out of the plant. He said: "During our recent epidemic of so-called pneumonitis it was our practice to send home anyone who had a cold and was coughing. In addition, and as far as we are able, anyone who had been out with a cold was not allowed to return until they had stopped coughing. This method helped, but of course it had very definite limitations. As soon as it became generally known that we were not allowing 'coughers' to return to work, they would say they were not coughing even though they were."

This same doctor made another interesting observation which indicates the indifference of people toward colds. "In the October issue of our plant paper," he said, "a suggestion was made that employes report to the medical department for advice on the prevention of colds. The response was very poor; only one individual came and asked for the information. I know of a few others who always get 'cold' sheets every year from their own physicians. Aside from these individuals it is my impression that people, in general, are not particularly concerned about doing anything to prevent colds. They seem to figure that a cold will last a few days anyway, so why worry about it."

One doctor looked at the problem of preventing respiratory infections from a practical industrial standpoint. His program is as follows:

"Advice to the Employe:

"1. We all recognize that with the increased working hours and the subsequent increased tension adequate rest and diet, suitable clothing, and general care of the health are the most important factors in the prevention of respiratory diseases. We try to impress this upon the employe.

"2. We advise all employes to report immediately the first signs of any cold. Temperature and pulse are checked, and any steps that are indicated are taken at that time. These steps may consist of therapy for an early cold or reference to their family physician.

"3. If an employe reports to us a full-blown cold or upper respiratory condition, we advise him to take care of it immediately, to see his physician, and we perform the usual general supportive measures. We feel that an employe with an elevated temperature and pulse should not work, and we have never had any trouble in convincing the employe of this. Along with this we feel that many employes now a days tend to return to work as soon as they get out of bed. In our opinion this is

not advisable even though general signs and symptoms have disappeared. We have seen several cases in which too early return to work has caused secondary complications which caused a much greater loss of time than the initial illness.

"What We Attempt to Accomplish in the Plant:

"4. We attempt to keep an even temperature in the working areas as far as possible, and naturally along with this goes the avoidance of drafts, etc. With the amount of ventilation we have, this is by no means a simple problem. We also try to avoid jobs where a man must work inside and then go outside in the winter. This would subject him to sudden changes in temperature, and the majority of people will not put on extra clothing when they go outside.

"5. There are certain jobs that must be performed in water, such as testing, etc. If this water is kept as nearly at the room temperature as possible it seems to not only decrease the number of complaints but also improves the general health."

There is nothing new in these recommendations, but even so they have germs of ideas which can be incorporated in the present industrial health program with a view to protecting employes, both men and women, office workers and hourly-rated people, against the respiratory infections. Without modification the ordinary placement and health maintenance procedures would do this sufficiently well if, in applying them, industrial physicians were accustomed to thinking of such catastrophes as colds.

Perhaps it would be better if they would regard the respiratory infections as environmental diseases, such as they do the occupational diseases, always remembering however that human contacts rather than industrial exposures are the primary causes. Having accepted this point of view, they can — and many of them do — offer the workers protective measures as follows:

1. Recommend correction of physical defects which predispose to colds — sinus infections, infected tonsils, subnutrition, etc.

2. For those who are susceptible, obtain work assignment that do not entail exposures to air contaminations, drafts, undue variations in temperature, crowded environments, etc.

3. Encourage the workers who are more apt to have colds to wear appropriate clothing. Perhaps uniform work clothes, such as coveralls, are the best.

4. Conduct industrial hygiene investigations and make recommendations with intent of correcting exposures which predispose to colds.

5. Defer employment, isolate, or give sick leave according to circumstances, when acute respiratory infections with elevation of the temperature are found, until acute symptoms subside and the temperature is returned to normal.

6. Foster the use of the medical department for the temporary alleviation of symptoms as early as possible after they appear. The slightest tickle in the nose or irritation of the throat is an indication for preventive treatment.

7. When symptoms get beyond these early signs, encourage the employment of private physicians; the patient to maintain the contact until cured.

8. On re-examination, or consultation, if the physical defects which predisposed to colds have not been corrected, make further efforts.

9. Keep records on personal incidence of colds with a view to making appropriate suggestions to individuals who have frequent colds, and by department, in the office as well as in the plant, with a view to controlling epidemics.

10. Before and during the season for colds, carrying on educational campaigns.

Resuming analysis of the studies on sickness absenteeism one observes that the rates for the digestive diseases in women are double those of men. Diarrhea, enteritis, and the miscellaneous digestive disturbances are three times as high — and for appendicitis it is twice as high.

Immediately, industrial physicians begin to speculate on this and, without committing themselves, wonder if the female eats the right kind of foods. Perhaps this would be worthy of investigation, and when large numbers of women are employed the problem might be sufficiently important to justify the engagement of a special nutrition counselor who thinks of something more than vitamins.

The appendicitis rate in men seems to be on the increase, and considering the absenteeism which results from this disease in both men and women, it has clearly become an important source of lost time. In the group studied it was responsible for more than 112,000 days of disability in one year — an average of 45 days per case. While appendicitis is not regarded as preventable, its disabilities are to some extent controllable and industrial physicians can approach the problem from that standpoint. The key is in the fact that neglected cases are more serious than those which are recognized early and operated on promptly.

Among the early signs is pain in the abdomen, and this is a symptom that quickly attracts the attention of the person affected. If he reports it promptly to the plant doctor, or if at home when the original attack occurs, to his own personal physician, the diagnosis can be made and arrangements completed for an early operation by the patient's own doctor. To succeed in this plan it is necessary for the plant doctor to carry on some educational work among the employes, and strange to say, this should be chiefly among the foremen.

Getting back to the sicknesses in women one notes the high rate of absenteeism from conditions which are peculiar to the female, mostly acute and chronic diseases of the uterus, tubes, and ovaries. The rate is 56 per 1000. However, it happens that in this particular group involved the employes have insurance benefits, including hospitalization and surgical fee insurance. As these features were put into effect but six months prior to the year of the study the high rate probably shows that employes were taking advantage of the opportunity to have chronic operable conditions corrected. With due allowance the rate is still high, and it points to a problem, the solution of which is not readily apparent in view of the limited examinations customarily given to women and the confidential nature of their peculiar ailments. However, considerable can be accomplished through the employment of a woman counselor, preferably a female physician or registered female nurse.

Continuing with the study one comes to the diseases of the nervous system, neurasthenia, nervous prostration, nervous breakdown, etc., and one observes that the rate for absenteeism from this source is 6½ times higher in women than in men. This does not necessarily imply that nervous strains are rampant among women in war industries, as only seven-tenths of 1% of them are involved. This percentage compares favorably indeed with the over-all total sickness absenteeism rate of 25% for women. In other words, disabilities from this source constitute slightly less than 3% of the total of sickness absences in women. What can be done about this? Again the employment of a women's counselor is suggested.

The last significant item in the category of disabilities is pregnancy, with an absenteeism rate of 73.8 per 1000, which is about equal to that of the respiratory infections.

Throughout this discussion it has been assumed that industrial physicians in general, and this audience in particular, are thoroughly informed on the relative frequency and values of disabilities resulting from occupational injuries and diseases and the conventional methods of controlling them. An effort has been made to uncover new opportunities for reducing manpower losses from sicknesses of a non-occupational character. To this end it has been deemed sufficient to make a superficial analysis of the 1941 non-occupational sickness absenteeism experience of a large group of industrial workers, about one-eighth of whom were women.

Giving attention only to the highlights it has become apparent that there are certain outstanding sources of manpower losses in conditions that were formerly thought to be of no concern to industry, only to the workers themselves and their private physicians. It has become apparent also that industrial physicians can do something to overcome these losses by studying their own sickness absenteeism experiences. In this way they can locate their special health maintenance problems which do not ordinarily come within the purview of the plant medical department, and they can see possible solutions through additions to or slight modifications of their ordinary industrial medical activities.

HOW THE SMALL PLANT CAN CONDUCT A HEALTH PROGRAM

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In large industrial plants, the medical department has become a definite part of the organization. The employer, the worker, and the community, alike, share in the established values derived from a factory health program that regularly serves all its employees, that throws around them healthy sanitary working conditions; that educates them in health and safety measures; and that places them on jobs for which they are individually, physically and mentally suited. Because of immediate returns, the medical program justifies and pays for itself year by year. This very fact of self-maintenance should clothe health programs in industry, large or small, with extraordinary significance as a measure for the general betterment of industrial relations, plant efficiency, production and absenteeism due to sickness.

At the present time there is a tremendous effort being employed in an endeavor to carry some of the modern advances in industrial health to the smaller industry. These small plants utilize the services of the principal part of our fifty odd million gainfully employed persons in the country. In Illinois, for example, 70 per cent of industrial plants employ 250 workers or less. Because it is these plants that are in dire need of adequate health services, the medical profession, together with others upon whom devolves the carrying out of this program, stand ready to help you.

The problem of medical service for the small industrial plant is not a new one and I do not wish to leave the impression that a cure-all scheme is herewith presented. Furthermore, and unfortunately, I cannot lay down for you a specific program to be applied to your plant. It depends on the number of employees, type of manufacture, location of the plant, materials used, workroom environment and potential or actual hazards in each individual plant.

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However, time has permitted considerable education of all concerned, and so, today, with our broader concept of what constitutes a health program for industry, it appears that certain desirable measures in this connection might now be much more easily effected. A resume of problems and procedures and a reiteration of certain proved principles in this connection would, therefore, seem in order.

It has been found that many executives of small plants have a rather definite desire to help in maintaining the health of their workers, but a very vague idea about how they should do it. Few of them really know where to turn to enlist help. Not many of them have seriously considered the possibility of enlisting the part-time help of industrial physicians or available general practitioners, industrial nurses, private industrial hygienists, insurance carriers or the official industrial hygiene bureaus of local or State Health Departments.

While a number of the smaller plants have their own safety committees and all apparently manifest some degree of interest in safety methods, but few are found that seriously consider their factory health problems or how to correct them, or even attempt to instruct workers regarding factory health measures. And so, the younger worker learns from the older that certain plant conditions or manners of work are harmful, or that certain materials are poisonous and certain processes dangerous, and though, advice for his protection is given with good intentions, it is frequently misleading and founded on the superstitions of the older workers who boast of years of exposure. In this way, "industrial environmental hysterias" are created, with reference to health problems, and much money unnecessarily spent because management was uninformed or occupied with other matters. That is what actually takes place in the absence of a health program.

On the other hand, unless the smaller plant executive has been confronted with one of the major and publicized industrial health hazards, it is probable that the thought of seeking the services of those mentioned above, has never entered his mind.

The following is not a commercial plug, but rather an example of a service that has been available to the small plant in Illinois since 1936.

As a representative of the State Health Department, the fact that industry for the most part is conducted on the basis of private ownership, has not proven an obstacle to the Division of Industrial Hygiene in promoting and establishing health programs for those small plants not already provided with them.

How has this been possible? Because we have chosen to serve rather than to enforce; to instruct rather than to police. These can be instruments for great good. Like all public health agencies, our office acts as a clearing house of information — information which is already in print, and that which can be developed through special plant or workroom surveys and studies. It is important for the average employer to know that he has this ready source of information, to know that a request properly directed brings not only information, but service, if it is needed. We have found industry most cooperative, and so today 80 per cent of our work is upon request from management. There is no charge for our services.

In this way, our office and other official health agencies are supplying unbiased, uncolored information of environmental conditions in industry, and furnishing direct to management intelligent and comprehensive reports in which plant findings have been carefully weighed for significance, and fairly interpreted according to the best available knowledge in the field.

The services afforded in this way or through other consultants or agencies need not in any way interfere with the regularly appointed plant physician or the private practitioner at the disposal of management. The former groups mentioned need merely act as a case-finding body and refer the follow-up data and other recommendations to management and the physician in charge of the health program.

The small plant problem has challenged the best thoughts of the profession, and several alternatives have been suggested, the more feasible being that a number of small plants group together to provide a health program under a trained industrial physician. This has proven successful.

Another approach is to be found in the association of industrial physicians and engineers for the purpose of rendering to small plants medical supervision in quantities and character suited to their needs. For emergencies, services may be had by the plant by communicating with the neighborhood physician held in reserve for just such purposes. Plant environmental investigations are conducted at such intervals as may be deemed desirable from a knowledge of factory conditions. This method has the advantage of supplying at a low cost to the manufacturer the services of a group of workers qualified in a variety of industrial health problems.

In the smaller plants where such a staff cannot be supported financially, then close cooperation might be maintained between the physician to whom employees are referred for medical care and the engineering staff of the plant, the engineering staff of the compensation insurance carrier and, if possible, larger plants having similar processes in the factory area.

In Philadelphia, a plan reported in operation where one physician served five small factories varying in size from 100-550 men. In each of these factories there was an examining room and a treatment room. The doctor was in attendance one hour per week per hundred employees. A nurse also participated in this plan. The physician conducted preemployment and periodic checkup examinations. He was acquainted with the industrial processes and hazards of each plant, and advised management and the plant engineers in the control of these hazards. He gave health lectures, first-aid instruction and supervised plant sanitation. In addition, of course, he took care of industrial injuries and emergency non-industrial illness and injury. It was interesting to note that all but one of the participating manufacturers felt that the plan was so worthwhile that they increased the hours of attendance of both the doctor and the nurse above the original minimum.

For complete understanding, it is necessary that the employers need be considered. The following standards for an industrial health program in small plants are suggestively put forth as meriting your consideration.

1. Some or all of the activities should be carried out on the factory premises.

2. Activities should not be limited to emergency first-aid measures, but include some or all of such related services as pre-placement and periodic physical examinations, nursing services, health education, etc.

3. A first-aid room or dispensary, suitable in size and equipped to the individual plant, be maintained on the premises.

4. The physical make-up of the plant, such as atmospheric conditions, sanitation and drinking facilities, lockers, lunchroom quarters, etc., receive regular attention and conform to existing public health practices and other legal requirements.

5. Records in detail should be maintained as may prove of value to the employer or employee in the settlement of claims of any nature, or that may prove of value in the subsequent medical experience of the worker.

6. In plants of 250 workers or over, the services of the first-aid room or dispensary should be daily attended. This may be accomplished by having a nurse in attendance either on a full or part-time basis. Needless to say a physician should supervise the program.

Selection of the physician just because he is a nephew of the plant superintendent or because he belongs to the same golf club should not be the basis of selection. He should be chosen intelligently with respect to professional qualifications and character. All medical matters should come under his direct supervision. Nurses or attendants should be guided entirely by him.

The work of the physician in industry, as it is understood today, touches all departments and all activities of the industrial organization, and takes into consideration the total worker and his environment. It is only as his influence reaches out into the operating departments that his full possibility of service is realized. And furthermore, we must get away from the idea that a physician's telephone number constitutes an industrial health program.

There is nothing peculiar as to the equipment of the plant dispensary. It is merely ordinary medical and minor surgical equipment utilized in the care of industrial workers. The Committee on Healthful Working Conditions of the National Association of Manufacturers have published an informative outline and suggest that for factories of 200 employees or less, the dispensary have approximately 125 square feet of floor space. The estimated total cost for equipping this size room is about $300.00. For factories employing 200 to 500 workers, approximately 300 square feet of floor space should be available. Here the cost of equipping is about $500.00.

In the further planning of a health program, certain proved activities and procedures should be carefully considered for a successful outcome.

1. Medical examinations.
2. Environmental conditions in the factory.
3. Nature of manufacturing materials used

The purpose of medical examinations in industry is to assist management in placing the worker in occupations for which he is physically suited. By keeping in mind the three (3) reasons for rejecting an applicant for employment, viz., danger to himself, to others, or to property, it will be found only necessary to deny employment to a very small percentage of workers. It also serves as a source of information to guide the doctor in his subsequent efforts in behalf of the workmen's health, their continued safe employment and the fair adjustment of claims. For all purposes, reasonably complete physical examinations are advisable, including urine analyses, blood pressure readings, chest examinations and x-rays and such other procedures or tests as the physician may consider to be essential.

Knowledge as to the nature of the manufacturing materials used and environmental conditions in a plant are of importance when the health program is being arranged. Moreover, such factors greatly influence the extent and type of medical service. If harmful materials such as lead, silica, benzol, cadmium or chrome are used, the type of supervision adopted must provide special examinations of those workers who handle or are exposed to such substances. Furthermore, it promotes proper medical care and aids in formulating corrective measures. It also avoids possible errors in diagnosis; as for example, the confusion of lead poisoning and colitis or a

carbon monoxide exposure with migraine headaches. The plant physician who supervises your program and who undertakes these examinations, should familiarize himself with these special requirements as they are not often used in ordinary practice.

Some of you may say, "but that's big-plant stuff." Then one may as well argue that production efficiency itself is strictly a big-plant matter, which small plants cannot afford. That is not true.

There is no excuse for not being aware of the presence of every toxic substance used in a plant. Apparently the better way to be sure these days when so many new compounds are being introduced in manufacturing processes and operations is to check the list with the plant engineer or chemist, or with the many outside agencies, e.g., private industrial hygiene consultants, American Medical Association, industrial health units of the local, State and Federal government, and the industrial health committees of the local and State Medical Societies, manufacturers associations, insurance carriers and universities.

The above procedure is a practical and necessary precaution. It is part of a comprehensive health program. This survey technique is to a plant what a physical examination is to an employee. It can be spoken of as a diagnostic procedure. It is a kind of industrial health inventory, a check-up on health conditions.

Secondly, where possible hazards are noted, tests should be made to determine scientifically whether the exposure is sufficient to be dangerous. These tests usually involve air sampling and laboratory analyses. The third step, is the devising of practical measures to control any hazards detected. These measures may include the segregation or inclosure of a particular process, adequate exhaust ventilation, use of wetting methods, improved housekeeping and personal protective equipment. But processes change, equipment deteriorates, improvements develop, supervisors and workers get careless. Therefore, a fourth step, maintenance, becomes necessary. This means periodic check-ups to insure the "eternal vigilance," that is so essential to safe operation.

I have already mentioned the need for a nurse in establishing health programs. In those plants employing them, they are rendering excellent service. In some areas, the Visiting Nurses Association render hourly nursing service to some small plants. If the nurse has a flair for industrial work and adequate facilities are available, plus the support of the chief executive, she can slowly and surely grasp the problems involved and become invaluable to her employers. As an example of some of her duties, she can:

1. Assist the plant physician with examinations of employees. This is supplemented by follow-up work on recommendations made by the physician for defects discovered.

2. She can act as a liaison officer between plant physician, safety or personnel director and foreman in properly placing returned workers following illness or injury.

3. She can cooperate with local and state health departments for improved health standards. With the aid of the physician, these can be properly interpreted and then turned over to the management.

4. For worthy cases, she can be instrumental in securing the assistance of community agencies.

5. Besides giving and proving for first-aid under medical supervision, she can aid in coordinating her work for the betterment of industrial relations by:

(a) Assisting the safety department in the interpretation of its program.

(b) Assisting in developing recreational facilities.

(c) Serve as a dietitian for the plant lunchroom.

Over and above the occupational disease factor, there is a tremendous loss arising from ordinary illness of all kinds among industrial workers. The latter cannot be minimized in planning a health program. I refer to the chief acute illness as the common cold, digestive disturbances and nervous afflictions. Others are tuberculosis, cancer, syphilis, and malnutrition. Much of this situation is believed to be due to the failure to get to these workers and management the best knowledge upon the prevention of these afflictions. The failure seems to lie in education. Many informative and illustrated bulletins and

posters regarding any of the above are available through state health departments and other semi-official and private agencies. This type of literature should be part and parcel of every first-aid room and religiously distributed to workers. Educational movies are also available for this purpose.

We need to educate the employees as to the benefits that they will derive from these health programs. Workers in general cooperate very well if the medical service is efficient and unbiased. The physician or nurse have unusual opportunities for disseminating health information. Instructions offered at the time of examination, consultation or treatment, can be personalized and suited to the condition or needs of each individual. Each contact affords such an opportunity.

The value of adequate records, both sickness and accident, is also necessary for making your health program a success. Management must have records for the fair evaluation of claims, and the physician or nurse certainly should have complete records in order to demonstrate to management not so much as what has been done, but to demonstrate the advisability of continuing the program and to chart future action.

I am not trying to raise the banner of standardization, but it does seem logical that some close and uniform program and technique be considered and put into use.

I urge you to take a greater interest in developing a health program for your plant. This is particularly directed to managements of small plants whose medical services are usually limited to the care of emergencies only. There is more need for preventive medical practice and other requirements of a minimum health program. Many individuals and groups stand ready to help you.

An inadequate health program for workers lays a heavy burden on industry, much greater than most tax burdens.

Since time is short, I will attempt to enumerate the values derived from a health program.

1. Decrease in compensation and insurance costs.
2. Decrease in production costs — continuity of production.
3. Decrease in absenteeism — no gaps in production schedules.
4. Decrease in labor turnover.
5. Increase in production rates — smoother operation.
6. Less labor trouble.
7. Better employee-employer relationship. Employees happy to continue work for such an employer and the employer is proud to have provided his workers with the best possible working environment.
8. Good will of the community.

PROBLEMS IN EMPLOYING THE PHYSICALLY HANDICAPPED

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I've been invited to speak to you tonight on the problems involved in employing physical handicaps — and I can't think of a subject I'd rather talk upon, especially at this time.

We all know that World War II, as no war before it in history, is a battle of manpowers. We also know that to have 9,000,000 men in our armed forces by the end of 1943, we must have 62,500,000 men and women in vital industry at home. And with only 55,000,000 employed in our country today — 4,000,000 of whom will be drawn off for the armed services — we know we are facing a manpower shortage of 11,500,000 unless something radical is done to change the picture. We must draw into industry the still untapped, or inadequately tapped, resources of available manpower in the women who as yet are not employed; the older men who were scrapped during the depression; the Negroes; and the subject of my consideration tonight — the so-called handicapped, who from a vocational point of view are frequently not handicapped at all, if only the slightly extra effort required is spent in choosing their proper placement.

That is the only real difference between hiring a handicapped worker and hiring a so-called normal worker. A little more time, and sometimes a little more imagination, must be expended during the initial interviews to make

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sure that the work involved is within both the physical and mental scope of the handicapped. And later during the early days on the job, a little more supervision is sometimes necessary to guard against over-zealous effort, and to make sure that minor remedial inconveniences — such as a non-swivel chair for a man with a heavy brace, when a swivel chair would facilitate his rising and getting seated — do not hamper his efficiency, for the average handicap would die rather than draw attention to his disability by seeking the correction of such an inconvenience himself.

Such things really are trivalities, but they can spell the difference between success or failure for the handicap. I know you will have difficulty in believing me when I say — speaking both as a surgeon and as an employer myself — that the greatest handicap the cripple faces in making good in today's economic world, is the handicap that years of prejudice has put in the minds of employers and fellow workers.

Don't misunderstand me, please. This prejudice is a perfectly normal thing. For untold centuries the cripple has been the butt of the universe, a creature shunned because of his malformation, believed to be the result of his own personal evil, or of that of his ancestors. The Sanscrit word for cripple meant "the evil one incarnate" and this idea has persisted down through the ages, to the degradation of the cripple himself, and of humanity in general.

Here and there through the years, voices have been raised in his behalf. A slight departure from his usual tragic role of the abused and the degraded, came during the Middle Ages when the cripple was made a court jester or a buffoon for the amusement of the thoughtless, and parents were even guilty of maiming their children to supply this demand.

But the real amelioration of the cripple, which has become the scientific rehabilitation of today, began after the machines of modern living — the automobile, the power press, the travelling crane, the conveyor belts, the truck, the railroads, etc. — had produced cripples in such ever-increasing numbers that a healthy national economy demanded that as many as possible be returned to self-support. The labor unions took the initiative in this movement to improve the lot of the cripple by public statute. World War I with its aftermath of veteran cripples gave new impetus to the cause. Meanwhile the techniques of surgery and medicine were providing the means for restoration of physical function to the bodies of the crippled to a degree undreamed of a few years previous.

This combination of circumstances led to the passage of the first rehabilitation law in the country — that of New Jersey in 1919. By means of surgery — and particularly bone-graft surgery, by which healthy bone — usually from the tibia — is used to supplement or replace weakened or destroyed bone elsewhere — we were able to repair the body of the cripple to such an extent that often, in the cases of adults, he could return to his pre-injury job. In other cases, where vocational reeducation was indicated, we provided the best available type of training suited to his particular needs and abilities, and then waited for the employers of the State to do the rest — not without constant solicitation on our part, and with all the case histories and publicity which we could bring to bear.

A veteran who had lost the power of speech but could still draw was hired as a mechanical draftsman at $250 a month. We told the world about it. A chap who had lost both legs, became an automobile salesman, and later assistant to the president of a great automobile company. A yard laborer who lost a leg was upgraded into a commercial artist. A girl with infantile paralysis traded her wheel chair for a job as occupational therapist. Another became a psychologist. A boy who had lost an arm hopping freights became a fine cabinet maker.

Despite all kinds of human interest stories to prove our point the prejudice in the mind of the employer lingered, and in many cases the very employer whose tax-money had been used to train the handicap, refused to give that handicap even a trial when it came time for finding a job.

We who have been in rehabilitation work for years know the type of question the employer has in the back of his mind when he is asked to consider a cripple for an available opening. Actually the approach is much more tactful than that. The employer is asked to consider an applicant with certain qualifications — but with a certain disability.

However the question in the employer's mind remains the same: "Why should I hire half a man, if I can hire a whole man?" This, of course, is not as true today as yesterday, but the faulty thinking involved is still current. From an economic point of view, the employer should never hire half a man if he can get a whole man. The question is: What is a whole man?

Edison by present physical employment standards was not a "whole man." It would be fatuous to ask how many of you would hire him today, if given the chance. Suppose General Electric had discriminated against young Steinmetz because of his twisted spine?

Every one of us is a vocational cripple to some degree. Look at the man sitting next to you. Could you fill his job? Could he fill yours? In a primitive society where brawn is the only criterion of ability, many of us would be adequate for all kinds of work. But in today's complex industrial world, there isn't a person alive who could fill every and all jobs. So to that extent we are all vocationally handicapped. It is merely a matter of perspective. Think of that the next time you are approached on behalf of a cripple.

A cripple who has been trained for a job is bringing not a half-man's work, but a whole-man's work to that particular job. Throughout the country, in every State, there are now rehabilitation departments, bureaus, or other agencies, whose main responsibility is to see that the cripple is prepared to fill some job in modern industry — not just any job, but a job for which his particular abilities, education and background fit him in as close to a tailor-made fashion as modern medicine, psychology and pedagogy can produce.

In addition, the cripple brings to a job a rare kind of loyalty — he appreciates being given a chance to prove he is not a social liability, but a self-respecting member of his community. He has a type of patience practically unknown among the able-bodied. If you had seen the years of pain and agony some of the rehabilitated cripples have endured that they might not spend their lives in bed or a wheel-chair, you would realize that the good old-fashioned guts required to rise above such suffering, gives the cripple a *plus* that makes his hiring one of the wisest personnel moves some employers ever make.

Henry Ford has thousands of handicaps working for him, that in itself is eloquent testimony of their efficiency. One of the happiest experiences in rehabilitation is to pick up the phone and to find an employer on the other end asking for more of the same kind of handicaps as he has just hired. More deaf-mutes, for instance, to help make paper cups in a job requiring concentration; more jewelry apprentices with a good pair of hands, normal eyesight and average intelligence — what matters it if the legs are crippled by infantile, as they were in the case of one boy who today is a clever young jeweler.

In the interests of spreading the gospel of "not what is gone, but what is left" as the important consideration in the hiring of the handicap, we even produced a movie called "opportunities." This depicted exactly what happens when a workman loses an arm, for instance, and must be retrained for a completely new kind of work after he has recovered from his injury and been fitted with an artificial arm.

This won us a few employer converts, but not enough. Deep rooted prejudices die slowly. When we would cite some of our more outstanding cases — a home-bound wheel-chair case who became one of the leading young accountants of the state, or another similarly afflicted victim of infantile who rose to a professorship in engineering at Rutgers University, the employers were interested, but unconvinced. They insisted we were picking our cases. What happened in the case of the ordinary employee, and not just one employee, but a representative group of employees?

In 1929, J. W. Dietz of the Western Electric Company, who was also assistant director of the New Jersey Rehabilitation Commission, got his company to agree to an experiment which would serve to answer this question in terms no employer could misunderstand or misconstrue. For one year from August 8, 1929 to August 8, 1930, the physical requirements of the Western Electric Company at Kearny, New Jersey, were relaxed, and 652 vocational handicaps were employed — 482 males and 170 females — to work

side by side and in direct competition with the so-called able-bodied workers. Almost 50% of the handicaps hired had defective vision, 16% suffered from hernia, 19% had a deformity or had lost an arm, hand, leg or a foot. The rest had such things as varicose veins, the loss of an organ as the result of surgery, and similar physical faults which many of you wouldn't consider handicaps at all, but which your medical departments would rule against. The work of the handicapped group was matched against that of the normal workers, with the following results:

It was found that 7.9% more normal workers resigned than did physical handicaps. (This showed the greater stability of the handicapped worker.) Because this was during the depression, layoffs were in order, but only 2.6% less normal workers were laid off due to lack of work than handicaps. (And handicaps were according to the rules not to be given preference.) About 7½% more normal persons were relieved because they were not suited to the type of work, and 7% more normal persons were absent during the year than those who were handicapped.

And here's a figure to interest employers: 5.6% more normal cases had accidents than did the handicaps.

The handicaps had more absences on account of personal business, marriage, funerals, etc. than the normal employees, but this is understandable, since in many cases treatments of one kind or another must be continued over a period of years. However, the employer is always appraised of this in advance of employment and allowance made for such absences.

The handicaps showed a higher average of increase in weekly earnings than the normals — 4.6% as against 4%; but the hourly-rated handicaps were a little under the normals — 8% as against 9.9%.

The verdict on production was a little more difficult to estimate since the cases were spread over many types of work, some of which were impossible to measure in terms of comparative success. However, the general conclusion reached was that in many cases the handicapped were equal to the best in their departments, and in some cases they were especially outstanding. And at the end of the trial period, 307 of the original handicaps were still employed, as against 287 normals. (The unusually large turnover was due to the reduction in the number of short service employees made necessary because of the depression.)

As a result of this experiment, the Western Electric Company concluded: ". . .there is no real reason why people possessing certain vocational defects should not be employed by large industrial concerns. The results of our year's experience with the vocationally handicapped workers were sufficiently satisfactory to make their acceptance a part of the standard practice of our Medical Department.

"Likewise, as a result of our experience gained in working with the vocationally handicapped employees, significant changes took place in our thinking regarding other phases of our rehabilitation problem.

"It occurred to us that we had not exercised the same care in providing an adequate placement and follow-up routine for employees who were impaired with sickness or injury while in the employ of the company. An investigation of some 15,000 Benefit records revealed that 155 of our employees had sustained handicaps or limitations while in the service of the Company. These 155 cases were immediately investigated to determine the suitability of their work. The ever-present danger of an aggravation of an earlier condition, brought about by placement on poorly adapted work, was strongly indicated by two of these cases. Recurrence of a hernia, induced in each case by work obviously unsuited to the worker's condition, was a source of expense more than adequate to maintain a general follow-up of these handicapped workers for a five-year period."

The danger of a second accident with its risk of "total disability" is another hurdle to the hiring of the handicap in some states. In New Jersey we have overcome this by creation of a so-called 1% fund, into which all insurance carriers pay 1% of all monies paid out by them in the previous year for compensation, and from which payment is made to the injured, at the expiration of the second accident payment period, when considered as a single compensable accident. For example, if a man loses an eye working for Company A, then loses the second eye while working for Company B, neither company can

be held responsible for his total disability. Company A paid compensation for the first eye. Company B pays compensation for the second eye. But the victim by the loss of both eyes is entitled to "total disability," and under the compensation laws must be paid by someone. In New Jersey, it is the state, who assumes the burden of the payments at the expiration of Company B's period of liability for a single eye, and the source of these payments is the 1% fund. By this method it is believed the burden of total disability is distributed most equably, and the re-hiring of handicaps is facilitated.

In states not possessing some such "second accident" protection for the employer, strict observance of the safety laws will go a long way toward removing this risk.

The national Fair Labor Standards Act, affecting firms engaged in inter-state commerce, specifies that aged and handicapped employees may be hired at less — but not more than 25% less — than the minimum way paid the normal worker (25c per hour for a maximum of 44 hours, to be increased each year until 40c per hour for 40 hours per week is reached), but only after approval by the Wage-Hours Division of the Department of Labor in Washington; and no establishment may employ a number of such workers in excess of 5% of their total personnel.

Some employers in the past have found their humanitarian instincts weakening when it came to filling out the necessary forms and forwarding them to Washington. However, after all the form-filling practice business is getting these days, an extra form or two to hire a much-needed employee is practically *nothing*.

Prior to scientific rehabilitation days, many well-meaning individuals tried to place handicaps on the basis of sympathy — not ability, and thereby did the cause of the cripple a real disservice. For the cripple doesn't want pity or sympathy — he just wants a chance to prove himself on a job — to prove that he is really of some value in the world.

When a company, as recently happened in New Jersey, discovers that blind workers can sort mica more than twice as fast as sighted workers, even aided by machines, then something wonderful happens to the self-esteem of the blind workers, and perhaps for the first time in his individual life, he feels a surge of deep joy — a feeling that life really needs him after all.

That's one thing this current manpower shortage and World War II is teaching all of us — we all have a place in this life, not only for our own happiness, but for the happiness and security of those around us.

Most physical handicaps who are adults have long ago given up the dream of really finding the world needing them — welcoming them with open arms. They have been rebuffed so often. To reinstate that dream, to give them back the belief that after all their birth was not a mistake, is to have a part in one of the most satisfying of human efforts, as well as at the moment, a vital share in protecting our national security.

The lame, the blind, the halt, the deaf, the spastic — all have undreamed of potentials. To deprive them of their chance to help win our war, is not only cruel to them, but might prove nationally tragic. Nothing would please the average cripple more than the chance to risk his life for his country, to feel that particular form of equality with his able-bodied brother. Modern war is such that this sacrifice is denied him, but total war, which includes the home front, is giving him a chance to approximate it when he is used at his fullest war-time ability.

Not alone humanity demands that we recognize this fact. National security demands it. And as so many employers are discovering to their complete surprise, their own company's prosperity and best interests also demand it.

The time to hire the nation's cripples is not tomorrow, but today. This vast reservoir of manpower is ready and waiting. Tomorrow, if we do our job today, the boys from the Solomons, New Guinea, and North Africa will be coming home for good. Yes, there will be cripples — many of them — among them. Let us not disgrace their magnificent record by refusing to scrap our prejudices. Let us pave the way for their return into industry by adjusting our thinking and our hiring to absorb the handicap as naturally and as graciously as we absorb the able-bodied. In theory, this is the American way. Let us make it a fact.

DISCUSSION

Dr. Joseph H. Chivers, Chicago. — Dr. Albee very forcefully presented the problem of the handicapped workmen in relation to employment and by citing numerous instances, he showed clearly that a small amount of individual consideration easily bridges over the difference between the handicapped worker and the employment of a so-called "normal workman." His statement that the greatest handicap that the cripple faces is the handicap that years of prejudice has put in the minds of employers and fellow workers stands as an indictment against our present civilization.

I am sure that the outstanding cases cited by Dr. Albee are but a few of the examples that should convince employers that the handicapped worker has many other attributes which in the problem of industrial relations more than compensates for his physical infirmity. The interest shown by the New Jersey Rehabilitation Commission and the accomplishments of this Board should stand out as an excellent example for similar work in other states.

Yesterday, we heard Dr. James H. Biram of Hartford, Conn. discuss the recent developments in rehabilitation among the handicapped workers of that state. From Dr. Biram's remarks it was very apparent that a great deal was being accomplished in Connecticut through a co-operative effort by the state medical society, the manufacturers association of Connecticut and the state rehabilitation commission.

For the past 18 months American industry has been confronted with the need of tapping every possible source of manpower for war production. Inflexible employment standards on age, physical fitness and experience have long been dropped and management has been forced to consider the employment of women, the aged and that 4 to 6 per cent of handicapped persons who did not come up to the physical standards formerly required by pre-employment examinations. As a war measure many industries have now adopted definite policies of hiring for the job and fitting the pre-employment examination and standards of physical fitness to specified types of employment. Anyone who can produce will now be considered for employment.

The types of permanent disability that industry in the past has been hesitant to employ were those persons afflicted with disablement which progressively became worse with age, irrespective of whether or not they were employed. However, in too many instances when such persons were employed the increased disability was attributed to the nature of the employment. Likewise injury arising from impaired function that was in no way related to the employment was held as a total responsibility of the employer. Frequently impaired vision, deafness, heart disease, varicose veins, quiescent tuberculosis and various degrees of orthopedic handicap such as those resulting from infantile paralysis and osteomyelitis was the major cause of disablement for which the employer was asked to assume responsibility. When applicants were chosen for employment, industry naturally preferred the average employee who it was hoped would work at uninterrupted full capacity until his retirement age at 65. Management was willing to assume the care of those crippled in industry through their employment but they were not inclined to take on any potential liabilities. After all, industry is fundamentally in business to make money.

A recent survey indicates that there are approximately 133,000 blind persons in the U. S. and upward of 425,000 blind in one eye. There are 3,700,000 suffering from cardio-vascular diseases, 680,000 with a quiescent tuberculosis, while 2,500,000 persons in the U. S. are afflicted with orthopedic handicaps.

Within the past 2 months the National Association of Manufacturers made an extensive inquiry to learn what the war plants in this country are doing to make use of physically handicapped persons and whether they are doing anything to restore present and prospective workers to better health so that they can take their places in the nation's assembly lines. The results of this inquiry indicates that employers are definitely interested and willing to cooperate in the rehabilitation of this mass of potential manpower but there are perplexities and uncertainties that impede any real movement along this line. Frequently compensation laws, insurance restrictions, seniority rights, wage and hour provisions and personnel problems prevent an employer in hiring handicapped workers.

In two states, six companies mentioned that they have definite policies of co-operation with the state rehabilitation agencies for placement of handicapped workers. A few firms stated that they have offered co-operation with the local medical and hospital service to enable the applicant to fit himself for appropriate work. Considerable placement of this type has been done by the Industrial Commission of the state of Pennsylvania, but on the whole there is a lack of concerted action and clear purpose in meeting this problem. Apparently there are numerous legal and personnel problems which need clarification before any active co-operation between employers, medical fraternities and our state industrial commissions can work out a pattern for the placement of these handicapped workmen.

In an effort to clarify some of the problems confronting the employment of the handicapped worker in the state of Illinois, we have asked each member of the panel to present his viewpoint.

THE EMPLOYER'S VIEWPOINT.
George P. Wardley, Chicago, Manager, Industrial Relations Carnegie-Illinois Steel Company.

THE INDUSTRIAL COMMISSION'S ATTITUDE.
Alfred J. Borah, Chicago, Illinois Industrial Commission.

MEDICO-LEGAL ASPECTS.

Frank R. Peregrine, Attorney, Chicago.

I should like to call attention to the fact that as a result of this war we all will need to participate in a program of rehabilitation for many of the soldiers who will return from service. This program must be more than surgical and medical treatment and itation of the crippled service man so that he can assume his just share in economic self-sufficiency.

Discussion of Dr. Albee's Paper Continued —

EMPLOYING THE PHYSICALLY HANDICAPPED FROM THE EMPLOYER'S VIEWPOINT

MR. GEORGE P. WARDLY
CHICAGO

The problem of employing the physically handicapped can be discussed from many angles. In approaching this problem it might be considered much more appropriately by referring to three distinct classifications of handicapped persons:

1. Employees who, through medical examinations provided by the company, are found to be physically handicapped.
2. Employees physically handicapped as the result of accidents within the plant.
3. The physically handicapped who are seeking initial employment with the company.

Industry may be open to some criticism in its lack of development of more extensive measures in rehabilitating the physically handicapped; however, we should not be too hypercritical in our first analysis, since industry has effected some programs that are quite commendable.

Let us consider first the individuals who, through the medium of physical examinations provided by the company, are found to be physically handicapped. Many individuals in this group have been unaware of their physical defects. The company examination apprises these people in many instances of their condition in time to prevent much greater damage and lessen the degree of disability. The conditions disclosed in these examinations are usually corrected within a comparatively short period of time. In some cases, it is necessary to place employees on occupations other than their own, until the condition improves. In this particular group we consider it important to emphasize the use of practical tests in addition to the physical findings of the medical staff. Under one method of procedure, the medical staff, on determining the condition which makes it unsafe or inadvisable for an employee to continue on his present occupation, forwards to the Industrial Relations Department a recommendation that the employee should be placed on another occupation. In making this recommendation, the medical staff acquaints Industrial Relations with the employee's physical limitations. The Industrial Relations organization, therefore, in cooperation with departmental supervisors, makes every effort to place the employee on a job which will permit him to continue work with a minimum loss of earnings. Let us review a few actual cases to industry must bear a large share in the moral rehabilemphasize the importance of thorough follow-up in the use of practical tests under actual working conditions.

CASE 1

An overhead crane operator, an occupation on which frequent physical examinations are provided, was found to have a serious defect in vision, namely, a complete lack of depth perception. Naturally, the medical staff (following its findings) recommended that the employee be removed from the occupation of overhead crane operator. Since the employee in question had several years of satisfactory service, it was considered advisable to investigate thoroughly before placing him in an occupation which would result in some loss of earnings. A check of supervisors and ground crews who worked with this craneman revealed that he was considered one of the safest and most efficient operators in the organization. The medical staff thereupon gave this individual additional tests which disclosed that, although the craneman had been unaware of his handicapped vision, he had developed the habit of moving his head from side to side to get a better view of the operation. It was agreed that he could perform his work safely and he was allowed to continue on his regular occupation.

There have been a number of similar cases and it may be desirable to review just one more.

CASE 2

An employee working as a switchman for locomotive cranes was found to have limited hearing. The medical staff recommended therefore that he should be placed on another type of job. Again it was decided to conduct practical tests. Under actual working conditions, this employee readily heard whistle signals, shouted warnings, and verbal instructions on operations. Despite the physical findings, there apparently was no reason why this employee could not safely perform the work of a switchman, and he was allowed to continue on the occupation. Thus it has been found advisable to develop all possibilities regarding placement of employees who are found to be physically handicapped.

Industry has a direct responsibility for the second group of those physically handicapped as a result of accidents within the plant. Regardless of what caused the accident, let us assume that industry shall accept the responsibility for all accidents which occur as the result of its operations. In the not too far distant past, it was general practice to place employees handicapped as a result of industrial accidents on occupations such as watchman, flagman, janitor, and similar occupations. These employees were given these light jobs, and paid a wage rate for the position which was usually lower than the rate paid in the position previously held.

Today, the physically handicapped cannot be assigned to this type of work. Some individuals in this group have been trained to do work of a nature which will pay a rate comparable to that earned previous to injury and also provide for advancement. We believe that this training should be extended, thereby opening new fields of endeavor for industrially injured individuals.

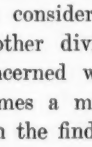
The third group possibly poses the greatest problem. The individuals in this group present themselves for employment at a company that has no direct responsibility for their handicapped condition. The responsibility assumed by the management of a company in such cases is one of a moral, or community character. Naturally, the condition of the labor market has greatly affected the employment of these individuals. In the past when a great number of people have been available for employment, a high physical standard has been maintained as a prerequisite to employment. If there are few candidates for employment, the physical standards, as a requirement for qualification, may be lowered by degrees to meet conditions.

One organization recently developed a plan for rehabilitating employees who have been physically handicapped as a result of accident or illness. This organization, on many occasions, was confronted by problems as a result of employees being physically handicapped because of an injury or sickness. The question of returning such employees to work was often controversial and delay was frequently encountered in arriving at satisfactory decisions. To expedite the handling of these cases and to arrive at decisions which would be satisfactory to all plant representatives concerned, a plant committee was appointed to make recommendations in each case.

A method of procedure was established for the handling of cases which was either a direct or possibly a social responsibility of the plant. The committee, known as the Plant Employee Rehabilitation Committee, is composed of the Assistant General Superintendent as Chairman, seven division heads, the Superintendent of Industrial Relations and the plant Chief Surgeon. It was agreed that the committee would meet only when specific cases were to be discussed; but not more frequently than once in each two-week period. Procedure provided that each case handled by the committee would be decided by five members and the plant Chief Surgeon. The employees handling and deciding each case are the Division Superintendent of the employee involved, the Superintendent of Industrial Relations, two members of the committee selected by the Chairman, and the Chairman, who casts the deciding vote if necessary. In all cases, the plant Chief Surgeon recites the case history and the employee's limitations.

The initial effort usually will be to determine the possibility of returning the employee to work in his own division, with the understanding that each division will make every effort to cooperate. If the committee finds this inadvisable, they then consider the possibility of assignment to another division. The division superintendent concerned with the occupation selected then becomes a member of the committee and votes in the findings.

We in industry now regard it as not only advantageous but as one of Industry's added contributions to society to establish similar methods for the purpose of employing, so war as is possible and proper, all individuals physically handicapped, regardless of cause or responsibility for the handicapped condition. This procedure will no doubt make it possible for many physically handicapped persons to be gainfully employed, to the best interests of both individual and industry.



THE EFFECT OF THE WAR ON THE MATERNAL WELFARE PROGRAM IN ILLINOIS

FREDERICK H. FALLS, M.S., M.D., F.A.C.S.
CHICAGO

The reduction in maternal mortality in Illinois that has occured in the last ten years as a result, in part at least, of the steady pressure by the members of this Society against the factors which in the past have been responsible for the great majority of maternal deaths has been most gratifying. The rate per 10,000 live births has dropped from approximately 7 to 2.9 putting Illinois in an enviable position among the great states of the Union with comparable populations.

This accomplishment represents the united efforts of many men and women working largely without remuneration, and motivated chiefly by a desire to do a service for their fellow men and uphold the best traditions of our profession.

As we look into the immediate future however, the outlook is anything but rosy for a continuance of our progress, or even to hold the hard won gains that we have been able to make thus far. The military program calls for the induction into the army of 25,000 physicians by December 1st* Since there are approximately 11,000 physicians in the army now and the interns graduating next July 1st will supply approximately 3,500 additional officers for the Medical Corps, it is evident that the additional 10,500 medical men will have to come from the medical practitioners now serving the civil population.† Furthermore, this group of men will represent the younger, more active members of our profession to whom in the ordinary course of events the arduous work of handling the obstetrical cases would naturally fall. As a result of this outlook it is necessary for those of us who will probably be left in civil practice to organize the medical resources of the state to the end that the greatest possible efficiency be instituted in the various localities in the state to render the best service possible under the handicaps which are and will be imposed upon us.

As is well known, this Society several years ago at my request appointed a Maternal Welfare Committee which has a representative in each Councilor District and each Councilor District Chairman has sub-chairman in each county of the state whose duty it has been to study the local needs of the community as far as maternal welfare is concerned. Many of the counties have active committees composed of doctors, nurses and lay organizations which are doing good work in carrying out the maternal welfare program in their community.

It is those groups who should take the lead in any program which they or other groups may initiate. Under the leadership of Dr. T. B. Williamson, Chairman of the Maternal Welfare Committee, the groundwork has already been laid with the profession and with lay groups who only need a concrete program to begin any new worthwhile project that may be proposed.

The needs of various communities vary greatly and a program that is quite workable in one locality with a certain type of inhabitant may not be nearly so efficient when applied to another group with a different set of conditions. However, the fundamental factors are common to most communities. No matter what changes occur, in all communities it will still be necessary to provide adequate prenatal care. In general, this may be summarized by stating that a patient should be seen once a month in the first seven months of her pregnancy, and at least every two weeks thereafter. Some scheme should be devised to deliver this service to the patients while taking a minimum of time from the busy practitioner except in cases where complications require more extensive personal supervision of the case by the doctor in charge. It may therefore be necessary for the men in a given locality who were doing obstetrics to agree to collaborate in the handling of pregnant women under their care, and by concentration of the work to minimize the effort necessary to good prenatal care.

The average prenatal visit should consist of an analysis of complaints of patient, urine analysis, weighing, blood pressure and physical examination. The later procedure must be carried out by a medical man. Conceivably a patient would

*Probably about 40,000 actually in service on Dec. 1, 1942.

†These figures are estimates as of May 1, 1942.

From The Department of Obstetrics and Gynecology, University of Illinois College of Medicine.

Presented before the joint meeting of the Sections on Public Health and Hygiene and Pediatrics, 102nd annual meeting, Illinois State Medical Society, Springfield, May 21, 1942.

not be seriously neglected if she were examined thoroughly at her first visit at the doctor's office and sent to the hospital for her subsequent prenatal visits where she could be observed by nurses until the 28th week, unless some emergency developed or some symptoms appeared that aroused the nurses suspicion that everything was not normal, in which event the patient's doctor would be notified at once.

After viability of the baby the cases should be seen by a medical man every two weeks and examined externally at each visit, and rectally where necessary. This could be done by the local doctors taking charge of the prenatal work in rotation at the hospital in properly equipped examining rooms in connection with other duties at the institution. Any abnormality discovered would be referred immediately to the doctor handling the case.

Indigent community charges could also best be handled prenatally through local hospital services, at least as far as prenatal care and possibly also as far as delivery care is concerned.

I assume that it is axiomatic that hospitalization of obstetrical cases permits of more deliveries by fewer doctors and nurses than any other form of care. It should be our aim therefore to encourage as far as possible the entry of obstetrical cases to hospital services. In many communities as many as 80 to 90 per cent of the babies are born in hospitals which shows that the layity are ready to accept our advice in those matters when proper facilities are available.

It may easily be that as a prelude to this that we may have to convince the hospitals that obstetrical cases are desirable from the standpoint of hospital management. This should be easy to do in most cases. In addition to the care of the patient, it will be necessary for the hospital to provide adequate sleeping accommodations for men on call or who have patients that will be delivered during the night.

The problem of providing sufficient hospital beds in a given community for the increased demand of such service could be met, if necessary, by shortening the stay of patients in the hospital to a few days where facilities for home care are adequate, and where hard roads make the trip from the hospital safe and not too tiring. Special provision for warm transportation of the baby would be necessary. As a correlary to this proposition it would be necessary to provide for post natal supervision of the obstetrical cases by doctors or nurses or even experienced lay persons where necessary.

In order to conserve the nights rest of the local practitioners it may be necessary that an agreement be reached whereby one of the men doing obstetrics will be at the hospital and on call to meet any obstetrical emergency that may come up between the hours of midnight and 6 A. M. Special arrangements could be made between the men in a community who are doing obstetrics to assist in operative deliveries and in giving anesthetics, and consulting in complicated cases. This would be very desirable if it could be brought about.

Anesthesia in obstetrical cases may have to be limited to simple drop ether administered by unskilled nurse anesthetists under direction of the obstetrician. In this connection the use of local anesthetics which I pointed out in my article on "The Use of Anesthesia in Obstetrics with Special Reference to the Use of Local Anesthesia" will come into its own and once used will, I am sure, in many cases practically supercede general anesthesia for all but the most difficult operative cases. Obviously in all but a few hospitals it will be impossible to supply the personnel necessary to the safe conduct of obstetrical care under twilight sleep and its various modifications. There will in all probability not be sufficient nursing help to make this safely possible, and attempts to carry out the technique without sufficient help will lead to disaster. It will be much safer to eliminate this form of anesthesia entirely for the present.

The indigent and low income groups could be taken care of at community expense by the doctors on duty in rotation at the hospital, thus conserving time for the doctors and insuring better care for the patient and at less cost to the community.

A major problem will have to be solved as regards the nursing care of obstetrical patients. This however can be solved in various ways more or less satisfactorily. If the nurses that are left in the community are permitted to devote their energies to that portion of their duties that require special knowledge and technical skill, and if they be permitted to relegate more of the routine work of the hospital to nurses assistants

and maids a great step forward in hospital efficiency will have been taken. It is here that the help of interested intelligent women of a community may be enlisted. They know where the woman power of a community lies, and who can and who cannot be relied upon for conscientious and efficient work. Furthermore, their aid in enlisting the interest and support of other women is invaluable. Especially I would urge the women who have had nurses training, and who have for various reasons given up the active work to unite to form an auxiliary unit for emergency service in the community along the lines of maternal welfare.

Another group who might well be interested in such work are young women just out of college or high school who have an inclination to enter the nursing profession. These women could do a great service to the community by assisting in nursing duties in the hospitals for varying periods of time much as a probationer does in normal times. At the same time they could be obtaining sufficient insight and experience into the problems of nursing to determine whether or not they wished to make nursing their life work.

By carrying out these plans not only would the patients in the hospitals receive better care with a smaller professional personnel, but also, and a factor of primary importance, the whole problem of lay education along obstetrical lines would receive a forward impetus throughout the state which would be of the greatest significance and value.

In connection with the establishment of new private and government projects in areas where the accommodations for the absorption of the personnel of the industry into local communities with inadequate facilities, the obstetrical problems raised by housing conditions in trailer camps, boarding houses, and tourist cabins are very real and often difficult of solution. It is bad enough for normal cases to be housed and delivered under these conditions, but unspeakably cruel to permit women with complicated cases to go through a difficult labor like animals.

These conditions are not facts that may have to be faced some time in the indefinite future. They are here right now, and it is incumbent upon us to face the facts and accept the leadership and responsibility in working out the best solution of the problems presented.

It would seem that in each community where such problems exist that the maternal welfare committee of that district study the problem from all angles. An information service could be provided at the industrial plants where men and women employees could receive directions for obtaining obstetrical service. Patients applying at the local hospitals could be assigned in rotation to the men who were carrying the burden of caring for the indigent cases of the community. In turn these men would be held responsible for the occasional emergency call involved in the management of these cases.

Public Health nurses in these communities might well be used to augment the local personnel in caring for these emergency cases. Local hospitals could keep obstetrical bags set up to be taken or sent out to a home for use by a doctor or public health nurse in an emergency. Public health incubators can be strategically located for use in the home or hospital. A number of these are already available through the Health Department.

The above mentioned provisions could be under taken and carried out without additional expense, simply by proper organization of the facilities at hand. However, this may not be enough to carry on the program to its greatest usefulness to the people of the state. Money may be necessary to implement certain phases of the program not otherwise provided for. Since there is a budget of nearly $200,000 each year appropriated by the state and Federal government for a program of maternal and child health, and since this is administered through the State Department of Public Health, it would seem that much of this money could be best used in helping the situations that will arise as a result of war conditions, many of which we can only dimly visualize at the present time. All of this money belongs to the people of Illinois and should be put to work where it will do the most good at this time.

The care of the wife and baby of the man who has left for service with the armed forces is an especially important obligation of the state. Nothing that could be done for such a man would do more to bolster his morale and increase his efficiency than to know that the best medical service possible to provide under the circumstances will be available to his family, as a re-

sult of intelligent planning by the people whose life and liberty he is called upon to defend. Such men should not have to worry about anything except their jobs as soldiers. It is a small return for their sacrifice in time, money and blood for us to see to it that they realize that the community in which they live appreciates their efforts and stands ready in a concrete way to demonstrate its interest by insuring, even at considerable personal sacrifice, adequate care and protection for their wives and babies.

SUMMARY

The physicians left in civil practice should organize the resources of their communities for the most efficient maternal care possible with the facilities available. Cooperative endeavor will solve many of the problems which will arise.

The nurses available will have to be relieved of many routine duties in order to carry on more of the specialized duties in institutions. Their ranks will have to be supported by recruits from postgraduate nurses and from women who are contemplating entering nursing training. Women who are eligible to enter nursing training should be encouraged to do so.

The aid of lay womens organizations must be enlisted to supply information and make recommendations for the furtherance of these plans.

The leadership in such a compaign must come from the organized medical profession, and the mechanism has already been set up by the preceeding work of the State Medical Society Maternal Welfare Committee.

The local maternal welfare committees have been more or less efficient depending on the enthusiasm and initiative of the county committee chairman, many of whom are present today. One of the factors militating against the success of the maternal welfare program in past years has been the failure of the local chairmen to appreciate just what was expected of them in the way of a program, and also it was not clear that there was a real necessity for many of the proposals advanced by the state committee.

I assume that the facts set forth in the preceeding paragraphs cannot be successfully contradicted, and that the proposals are at least worthy of some consideration, and may be used as a point of departure at least in working out to the benefit of all concerned, the complicated problems facing us in the next few months.

We are in the fight to a finish. No stone should be left unturned that will in any way contribute to the winning of the war. Maternal welfare and national welfare are synonymous. Those who are not with us are against us.

DISCUSSION

T. B. Williamson, M. D., Mt. Vernon, Illinois. Broadening and extending official health services to include bedside nursing, nursing services for home deliveries and service for medical and nursing care for certain groups of childen such as premature infants are a fundamental part of our democracy.

This program is strongly supported because through such service the infant mortality rate in the last quarter of a century has been reduced by more than fifty per cent and the neonatal mortality rate has been reduced by one-third.

The death rate for infants who die during the first year of life also has been greatly reduced to 47 per 1000 in 1940 national rate which clearly indicates the importance of the maternal welfare program.

As in any other projects, however, war steps in and produces results which must be taken into consideration, and which retrogressive as it may be, tends to place limitations on this magnificent service. At least, war calls for some changes in the pattern of the maternal welfare program in Ilinois as well as in other states.

The psychological explanation of the increase in the birth rate in war time is not necessary for this discussion. The fact is that war jumps the birth rate, which further complicates the problem. The birth rate of about two and one-quarter million in 1939 went up to more than two and one-half million in 1941.

The problem in Illinois is that an expansion of the maternal welfare program is called for by the increasing birth rate. In fact, more doctors and more nurses are called for, but the doctors are also called for in war service and so are the nurses. It is also a fact that an expansion of the program calls for funds to provide for it, while the increased cost of the war demands that funds be devoted to war purposes. But in Illinois there is absolute necessity of an increase in the maternal welfare program if the limited resources available to provide the services are to meet the demand.

Illinois is faced with the problem of one-third of its physicians going into war service. Even before the war demand, the number was hardly sufficient to meet the needs for their services in the maternal welfare program.

As early as 1936 in Illinois it was realized that adequate medical and public health nursing supervision, started in early pregnancy, would increase the probability of safe delivery for the mother and of health for the baby. The prenatal clinic or conference conducted by a physician, supplemented by the educational services of the public health nurse in conference, in

home visits and in group instruction is the type of service which was recognized as necessary for women unable to obtain this prenatal care otherwise.

But a survey, as of June 30, 1939, showed that prenatal clinic service was available under State Health Department supervision in only seventeen per cent of the rural counties and in about 28 per cent of the urban counties. Of course, prenatal clinics are being held under municipal or voluntary auspices in the cities.

An effort to encourage mothers to go to the offices of private physicians for prenatal service is now being made. But experience has taught that the service in the physician's office is not always correlated with field public health nursing service. The trend has been toward prenatal clinics to be held once a month or even oftener at centers accessible to the women of a district or of a local area. This could be over come by better prenatal services in the offices of the physicians.

Prenatal supervision by physicians, aided by public health nurses assures the health of most women in their approach to a normal delivery. It also enables the physician to discover complications that indicate the probability of a difficult delivery and the need of hospital care at the time.

An adequate diet during pregnancy and lactation helps to protect the mother against certain complications of pregnancy and increases her chances of producing and rearing a healthy baby with a minimum drain on her own body. Instruction in the choice of food and other factors related to good nutrition is therefore an integral part of prenatal service.

In this state it has been necessary for physicians and nurses who instruct mothers in diet to take into consideration racial or regional food customs and the food available in the homes of the community. It is often possible for a consultant on nutritional problems to attend a prenatal clinic or conference to demonstrate effective methods of instruction on nutrition.

In other words, there are more or less delicate problems which may be handled properly only by the physician and public health nurse. Physicians, who haven't previously conducted clinics, are given professional assistance by the Bureau of Maternal and Child Health in starting and establishing a clinic routine. The obstetrician on the staff of the Bureau visits the clinics regularly to give assistance and consultation service through the clinic to the physician in charge and to invited physicians in each area.

This all points to the absolute necessity of the continuance of this service which is so important to mothers and children.

It is recognized that one of the greatest problems in improving the care of maternity patients and newborn infants is the improvement of the standards of care and equipment in hospitals caring for such patients. Chicago is one of the cities which have courageously faced the inadequacies of some of its hospitals. It has provided stringent regulations for their conduct in the care of patients. The need for such regulations has made itself manifest.

The drop in the maternal mortality rate in Illinois in the last few years is highly significant. In 1936 the rate was 45; in 1937 it was 39; in 1938 it was 34; in 1939 only 31, in 1940, 29 and in -1941, 25. This is on the basis of maternal deaths per ten thousand of live births.

The infant mortality rate is just as encouraging. It dropped from 47 per 1,000 of live births in 1936 to 38 in 1939. Only thirteen states had rates of less than 40 in 1939. (Illinois 1940, 35-1 and 1941, 34-1.)

In Illinois thus far the standard of service previously established in maternal welfare has been maintained. But with one-third of Illinois' physicians called to the total war effort the problem of continuing this service on existing levels is obviously a serious one. Thus far, although the condition has not been as acute as it will be, the service has taxed the physicians who are experienced in this particular medical section and the same is true of public health nurses.

The rising birth rate calls for increased service and increased funds to provide it in order that even some of the results of the demand for physicians by war be overcome. In the end some of the services may have to be more limited and these may include the home-delivery services which are of growing importance

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THE REJECTED DRAFTEE AND HIS MEDICAL AND SOCIAL PROBLEMS AS THEY RELATE TO THE COMMUNITY

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During the past seven months the St. Luke's Board of Medical Examiners has examined, roughly, one thousand draftees. These examinations were made by the Board, which was composed of representatives of the various medical specialties. The draftees were put through the examination much in the manner that automobiles are built by mass production, each doctor checking according to his specialty. At the conclusion of the physical examination, the neuropsychiatrist interviewed each one to determine his mental adaptability for the present changing conditions.

Although we are not in a position to give statistics from our findings, we believe that the incidence of physical defects in this group of draftees is comparable to the figures given by the National Headquarters of Selective Service System. Poor teeth was by far the most common defect, and totaled twenty percent of all

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rejections. Defective vision was a close second, averaging about twelve percent, but in the majority of these cases, the vision could be corrected by proper refraction and the wearing of glasses. Rejections for hernia totaled seven percent, for cardiovascular lesions, six and one-half percent, and for nervous and mental diseases, six percent.

I do not wish to burden you with many statistics. Those I have given you cover fifty-one percent of the total rejections. They were chosen to bring to your attention the fact that most of these defects can be easily remedied. The government estimates that an average of one hundred and twenty dollars will cover the cost of medical care necessary to place these men in the armed forces. This is certainly an acute problem, both from the standpoint of rehabilitation for the army as well as rehabilitation to carry on in civilian life. It requires the cooperation of the government, medical profession, and medical social workers.

The draftees represented all sections of Chicago and suburbs, but as would be expected, the largest proportion of rejections came from the underprivileged communities — the group of boys who came to us from the stockyard and North Clark Street districts was a far inferior group of candidates to those coming from the residential sections of Austin or Oak Park and other suburbs. This first group of boys did not follow directions although rooms were labeled and guides placed at proper stations to direct the boys from doctor to doctor. They were noisy, boisterous, and self-conscious to the extent that they gave the impression of being non-cooperative. As I have stated, this we expected.

However, we were not prepared for the dismaying revelation that in a metropolitan city there would be found boys between the ages of twenty-one and twenty-eight who could neither read nor write. This conclusion was based on the fact that they could not interpret their questionnaires and in some cases were unable to sign their names. In this country where large public funds are expended annually to provide a basic education for every child, only two explanations can be offered for these existing conditions:

a. Subnormal mentality, or
b. Inadequate educational program

Perhaps one of our social workers was not amiss when she commented that she wondered whether or not the truant officers were still doing their jobs. In order to justly determine the underlying factor for illiteracy, the psychiatrist gave many Intelligence Quotient tests. In every instance the test revealed a development below eighty, and in one case, sixty-four. This latter case was the product of the ungraded school system, although curiously enough he held a responsible job. Surely these conditions offer a fertile field and a mighty challenge to the social workers. I would be interested to know your reactions to these apalling facts and to learn what statistics you have from your districts concerning the lack of education.

Cases of malingering were fewer than expected, and the questionable ones were directed to the neuropsychiatrists. One of the city policemen reported back to our department on four different occasions and on each visit had a new series of complaints. Finally, it was necessary for the psychiatrist to tell the young man that if he persisted in his endeavour to avoid service, it would be necessary to report him to the Police Department as unqualified to carry on his police duties and to carry a gun. This threat served its purpose and all his former ailments have now "gone with the wind" and he is serving in the army.

We had the experience of having several candidates present themselves for examination, who were active tuberculous patients and were under active treatment at the Municipal Tuberculosis Sanitarium. One of these boys came to the examination from his bed in the sanitarium. It was very easy to check on his record, and he was quickly released. The inadvisability of having active tuberculous patients in contact with others is too obvious for discussion. One questions the intelligence of a government plan that does not provide *ipso facto* exemption for tuberculous or other acutely ill patients.

It has been interesting and encouraging to note the upward surge in morale following Pearl Harbor. Prior to December 7, 1941 many of the boys were a bit rebellious and reported for examination only because it was mandatory. Many expressed the opinion that it was not our fight. After Pearl Harbor it was an entirely different picture, and we felt that the change reflected the "esprit de corps" of their respective communities.

We are at war, a war that will tax us all very heavily. We will win this war, but the material and manpower losses and the duration of the war are dependent on what we, individually and collectively, contribute. The rejected draftee and his medical and social problems as they relate to the community is a very important part of our work as physicians and medical social workers, both as a war effort and a post-war program.

If the rejected draftee is to be rehabilitated so that later he can de inducted into the army or assume the responsibilities of civilian life, the government must establish a definite program whereby he can be given proper care. This plan should include using the now existing hospital facilities, the work to be done by the private physicians at reasonable rates. Whether this expense should be borne by the Federal Government or by the State or Local Governments is a question. It is my opinion that it should be borne by the Federal Government. It should be mandatory that the rejected draftee make every effort for rehabilitation. This plan should include some provision for systematic follow-up.

The role of the doctor in this program should be one of volunteering to care for from two to five such persons weekly at established fees. The dentists would of necessity come under the arrangement.

CLINICAL REPORT OF THREE RECTAL CASES

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Introduction: The following cases are presented as examples of interesting material of rectal disease among children. Each case has an academic point of interest, which, while not entirely new, is often forgotten or not appreciated at the proper time.

Strange as it may seem, the material to be presented has undoubtedly been written in text books or reference books, but apparently current literature written from time to time is more widely read.

CASE 1 — IMPERFORATE ANUS

This patient came to our attention recently. The case is that of a girl, age 23, who was referred by a physician in a town nearby. The essential complaint was a persistent diarrhea and a rectal incontinence, of twenty-three years standing; the stool was not formed and contained no blood, pus or mucus. The patient has received various forms of treatment in a conservative way but apparently did not improve. She became especially concerned about her condition in the last few years when her social contacts were becoming more important and more urgent.

In her past history the essential information was relative to an incision made in the rectum at infancy because of a closed rectum.

She was admitted to the Grant Hospital on July 21, 1938.

Proctoscopic Examination: Revealed the colon and rectum negative for any malignancy or ulcerative lesion for a distance of 30 cm. There was absolute relaxation of the rectal sphincter — the tonus was especially lax at the anterior rectal wall. (knee-chest position). The usual skin ridges were obliterated in the anterior rectal margin, indicating that the corrugator cutis ani fibers were injured.

Operation: An incision was made between the posterior vaginal wall and the anterior rectal wall and laterally on both sides to a point within reach of the levator ani muscle. A complete separation of the external and internal sphincter ani muscle at the central tendinous point was noted. The transverse perinaei M. were intact. We then brought the middle fibers of the levator ani M. of one side across to the anterior rectal sphincter and sutured them to the anterior portion of levator ani M. of the opposite side and included the external and internal sphincter ani M. in the suture. Another suture was fixed at the central tendinous point to include the transverse perinaei M. (deep fibers). The same procedure was carried out on the opposite side for a distance of about 3 cm. proximally from external orifice. The fascial planes were reinforced and skin layers replaced by black silk suture.

After Care: It is needless to mention that the sphincter should be put at rest for at least four to five days and that the diet should consist of low residue, high in caloric value and high in vitamin content for two to three weeks.

"Follow Up": The patient was observed at regular intervals at the office, after she was discharged from the hospital on July 31, 1938. The sphincter apparently was in good tonus and could be put in greater constriction at will. The stools were getting more and more formed and the number of defecations were reduced to two or three in twenty-four hours. The patient gained weight and resumed her previous occupation.

DISCUSSION

One must recall the fact that congenital abnormalities of the rectum and anus are exceedingly rare. Imperforate anus occurs once in ten thousand births. As a general rule two main types of malformations are described in the rectum and anus; (a) the imperforate anus where the embryonic defect is a septum

separating the anus from the rectum; and (b) the imperforate rectum where a portion of the rectal tube is absent. Our case was apparently a case of an imperforate anus. In the imperforate anus a septum which in fetal life separates the proctodeum from the post-allantoic gut is not obliterated entirely or may remain completely.

On the basis of the history that an operation was performed in infancy for a closed rectum and a rectal incontinence that followed is good evidence that injury to the rectal sphincter occured very likely during the operation. It is quite possible to injure the sphincter in infancy as the muscle fibers are very indistinct and are situated in close proximity to the skin layers.

Some authors do not advise such surgery during infancy unless as an extreme emergency. It has been suggested by Mummery that such operations should be postponed until about ten years of age unless in absolute closures of the anus. Uufortunately the sphincter in this patient remained unrepaired until twenty-three years of age.

In the diagnosis of imperforate anus it is essential to recall the possibility of a fluctuating mass (mucus plug) being retained by an anorectal membrane and not by an anomalous septum.

The history of the methods of treatments used in the early days is very interesting. Rankin (1935) refers to Egineta as the first to have incised an imperforate anus in the 17th Century. In 1787 Sir Benjamin Bell advocated the perineal dissection and trocar puncture. In the States, Campbell of Kentucky was first to perform an operation for imperforate anus. In general, it may be said that in the treatment of the earlier days no attempt was made to preserve the sphincter — the all important seemed to be the immediate emptying of the imperforate pouch — while the present trend, of course, is to accomplish both, the early evacuation of the rectal sac and the preservation of the rectal sphincter.

CASE II. PROCIDENTIA OF THE RECTUM IN A CHILD

The second case is that of a boy, age eight, who was referred to us because of a marked protrusion of the rectum at each defecation. Apparently this condition first started as a simple *prolapse of the mucosa* which would recede spontaneously after each stool and later it failed to recede unless by manual reduction. The patient at first was constipated but later incontinence developed. A strange story was related by the parent. The child in general enjoyed poor health and at the age of four became very badly constipated and when home remedies failed a physician was called and upon his advice daily enemas were prescribed. The same physician was not recalled and the parents continued with daily enemas for two years — it was after this period that the mucosal protrusion and subsequently the rectal prolapse became evident.

General Examination: Revealed the child was pale, poorly nourished, irritable but subdued and behaved too well to be a normal child. In general, however there were no significant findings in the abdomen, or heart and chest.

Dicital Examination: Revealed a prolapse of the mucosa, the muscularis, and also the serosa. When the protrusion was placed between two fingers there was evidence of loops of small intestine residing in the peritoneal pocket. The protrusion extended for about six inches, was of a deep reddish-black color and displayed evidence of inflammatory reaction. Sphincter action was definitely weakened inasmuch as the patient was not able to contract the muscle adequately at will, and at this time reduction of the prolapse was very difficult due to edema.

Proctoscopic Examination: Displayed no organic or ulcerative lesions for 20 cm. proximal to the margin of the prolapse.

Remarks: Because of the duration of the prolapse, the extent and the gravity of prolonging any conservative measures, radical treatment was advised.

In general statistical evidence points to the fact that palliative measures for procidentia of the rectum do not suffice and therefore I chose the *operation* using (Cunningham's technic) incorporating this with a modified Ball operation method.

Procedure: Patient was placed in lithotomy position and after due cleansing process, the prolapsed rectum was put on tension and a circular incision made on the outer surface of the prolapse just lateral to the mucocutaneous junction. At this point the proximal segments of the rectum are held in position by Allis forceps, caution being exerted to avoid injury to the small intestine as the peritoneal reflection is exposed.

In this manner the entire prolapsed rectal tube incorporating all the coats was severed from the redundant rectal prolapse. At this point the cut edge of the rectal mucosa (proximal portion) was sutured to the natural muco-cutaneous junction by a modified Ball operation technic. A high rectal tube was placed above line of suture and bowel activity abolished for ten days.

Post Operative Care: Is most essential — the following suggestions were carried out rigidly. The patient was given a *DIET* of high vitamin, high calory and of extremely low residue. To avoid *STRAIN* opium suppositories were placed in the rectum, and the patient was put in a *POSITION* semiprone or on abdomen for two weeks.

Later small amounts of mineral oil were given to assure a soft stool and parts were cleaned after each defecation to avoid infections entering the peritoneal cavity. After several weeks the boy was permitted to be up and about on a fairly liberal diet as far as choice of foods were concerned but still maintaining a low residue.

Progress: Up to the present writing the patient has gained about ten pounds, has absolute control of the rectal sphincter and has one or two stools daily. He has returned to the grade school and carries a normal program.

DISCUSSION

It might be of import to recall that prolapse of the rectum is most common in children of poor mentality and poor health, and that such predisposing factors as straining at stools, a severe cough, or constipation should be considered seriously. In this particular instance while the child was not particularly bright, he could not be accused on that score, for apparently it was the parent or the physician who was in error in prescribing a daily enema for the boy for two years.

A true prolapse of the rectum (procidentia) however is more common in the adult and therefore this case is an exception to the general rule.

CASE III — RECTAL BLEEDING

This case should be of interest to the general practitioner and the pediatrican from the standpoint of sequence of procedure in making a diagnosis.

The child was three years of age — one day the mother noticed some bright red blood in the stool and reported it to the family physician. A stool was examined and blood was reported positive repeatedly. The family physician, out of immediate reach of laboratory facilities, attempted symtomatic treatment. This proved of no avail and the child was taken to a large town nearby for diagnosis.

Again the stools were re-examined and a complete Gastro-intestinal series of x-rays were made. Inasmuch as the x-rays revealed no definite findings, a probable diagnosis was made of a possible parasitic disease and treatment instituted along those lines. The blood continued to appear in the stool and still no definite diagnosis was made. There upon the family physician referred the patient to us for observation. The child was placed on a clear liquid diet and after due persuasion a proctoscopic examination revealed two large bleeding polyps about four and six inches proximal to the external orifice at six and twelve o'clock positions.

On the following day after due preparation, the child was anaesthetized and polyps were removed surgically. We were especially careful to remove the polyp in its entirety and to disect it to include the basement membrane. In the*AFTER CARE* attention was directed towards a low residue diet of high caloric and high vitamin value, and towards establishing a daily soft stool without undue straining.

DISCUSSION

The main point that I wish to re-emphasize is the fact that one should not attempt to detect the cause of bright red blood in the stool by means of x-ray studies. It seems apparent to all what the procedure should be when this fact is recalled but so many of us make the same error again and again. My only interest at this time is to suggest the sequence of procedure in making a diagnosis of bright red blood in the stool in a child. First, examine rectum for bleeding, external hemorrhoids, and then if no hemorrhoids observed, examine stool for parasites and worms. If no microscopic findings are reported examine child proctoscopically with infant instrument for polyps, the most common cause for rectal bleeding in a young child.

It is obvious that bright red blood cannot possibly be detected by x-ray diagnosis if the bleeding is from the lower portion of the tract and if it is from the gastric portion of the tract one would not expect it to be bright red blood; moreover if the bleeding is of gastric origin and is profuse enough to appear as bright red in the stool it would be a great error to employ x-ray media in a condition so acute.

CENTRALLY LOCATED TUMORS OF THE FRONTAL PARTS OF THE BRAIN

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Localization of tumors in a "silent" region of the brain is *evident* when such tumors remain undiagnosed in spite of long observation or are recognized only shortly before death. It is true that the general signs of an organic affection of the brain are present but they are not sufficiently conclusive to establish the diagnosis. In the majority of cases, one finds these tumors in the medullary substance of the hemispheres, with the middle portion of the frontal lobe and the basal parts of the brain anterior to the infundibular region being frequently the site of predilection. Tumors of that type were found in three instances. They presented, however, the peculiarity of a strict midline localization with symmetrical expansion to both sides. The vague symptomatology found in these cases is well explained by the fact that the basal ganglia or the cortical substance were not involved for a long time, if at all.

The following report of three cases will illustrate the prevailing neurological and psychiatric symptoms and discuss the gross and microscopic postmortem examination. Special reference will be made to the psychosomatic relationship and vegetative disturbances.

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From Manteno State Hospital, Manteno, Ill.

(1). H. K., a white male, 49 years old. It was noticed that the patient's memory has been failing gradually since 1936 and rather severely during the last year. The patient was unable to sleep at night and slept mostly during the day. He would sit for hours, appearing stuporous. For two months prior to his admission to the hospital in March, 1939, he soiled his clothing with urine and feces and acted like a helpless child. He was euphoric and showed no concern over his mental deterioration. Examination in the hospital found the patient to be retarded in the psychic and motor spheres, such retardation resulting in stuporous, hypokinetic behaviour. He was disoriented for time and place. His memory showed a marked defect for recent events. The physical examination was negative except for a hypotension of 90/60 mm Hg. Hearing was normal on both sides. No aphasic, agraphic or apractic signs were present. Serology was negative.

The mental deterioration progressed during the following weeks. Marked general hyperesthesia became apparent. Ophthalmoscopic examination revealed no pathologic findings.

In the beginning of May, 1940, about one year after the admission to the Hospital, the spinal fluid showed twelve cells and positive Pandy and Ross-Jones. Encephalography disclosed signs of pressure exerted from the base of the brain to the hypothalamus; a brain tumor in that region and in front of the third ventricle was suspected. The patient expired in May, 1940. The autopsy was performed twelve hours after death. There was a moderate obesity of the trunk. The skin was soft in consistency, resembling that of a child. The hair in the armpits was scanty.

Upon opening the skull, the dura was stretched and tense and the brain was swollen. Inspection of the base of the brain showed a cystic tumor located in the midline above the pituitary gland extending above and frontally from the optic chiasm, growing through the inferior portion of the septum pellucidum into the lateral ventricles. The hypothalamus and the massa intermedia of the thalamus were dislodged and compressed. The tumor obstructed the Sylvian aqueduct, producing a very marked hydrocephalus internus of the lateral ventricles.

The tumor appeared to have developed from the upper end of the hypophysial stalk above the diaphragm, probably originating from the primordial cells of the craniopharyngial duct.

Microscopically the tumor was formed of innumerable cysts which were lined by single layers of columnar cells growing in folds and papillae. The structure of the cells proclaimed them to be ameloblasts or adamantinoblasts, thus placing this tumor in the adamantinoma variety of the craniopharyngiomas (Critchley and Ironside)[1]. The leptomeninges showed marked lymphocytic infiltrations in the basal portions of the brain and around the entire spinal cord.

The localization of the tumor explains the absence of motor tract involvement. The general hyperesthesia most likely developed due to compression of the thalamus. The pituitary gland, the optic nerves and tracts lying underneath the tumor were not affected. The reversal of the sleep ratio, the stupor, the constant low blood pressure, the scanty body hair, and the soft skin and the very early loss of bladder and anal control also represent hypothalamic signs.

These latter symptoms, however, may possibly be explained by affection of the frontal lobe. The findings in the spinal fluid were due to a chronic inflammatory process of the meninges, purely reactive and not infectious in character.

(2). F. S. 51 years old, a white male, was admitted to the Hospital on July 26, 1940, in a "state of depression and forgetfulness." There was urinary and fecal incontinence. About six weeks prior to admission, the patient became forgetful and at the same time adequate sexual relations ceased. Examination revealed the patient was in a fair state of nutrition. He was not oriented as to time. He stated that he heard voices telling him to return to work. He was under the impression that he might be someone else but he was unable to explain these changes in his personality. He was very apathetic. His blood pressure reading was 100/70. Ophthalmological examination was negative. No abnormal deep reflexes were found. Abdominal reflexes were absent. Gait, speech and coordination were normal. Blood and Kahn spinal fluid examinations were negative. Four weeks after admission to the Hospital, the deep tendon reflexes became very active, and a positive Gordon and Babinski sign appeared on the left side.

There was loss of bladder control and fecal incontinence. The patient appeared dull throughout his stay in the Hospital. Three days before death on May 5, 1940, convulsive seizures set in. They were limited to the right side and the patient did not lose consciousness during the seizure. Following the seizures a right hemiplegia and motor aphasia remained. The right leg presented a positive Gordon and Babinski reflex but no impairment of motor power. The left arm was only slightly affected. It showed relatively well preserved motor power but was inhibited in the execution of purposive movements and a motor apraxia of the left hand was manifest.

The blood pressure remained on the same low level. Four months after the onset of the disease, the patient expired from pneumonia.

The autopsy performed five hours after death showed the body to be that of a moderately nourished white male. The brain weighed 1350 g. The frontal region of the brain was slightly firmer in consistency than normally. A coronal section through this frontal area revealed a tumor the size of a small peach. This tumor had developed in the middle of the brain substance reaching from the genu corporis callosi, symmetrically expanding into both frontal lobes, displacing the anterior part of the lateral ventricles posteriorly. The tumor supplanted the anterior portion of the corpus callosum which was about 2.5 cm thick and symmetrically invaded on each side the head of the

caudate nucleus. It reached posteriorly almost to the level of the anterior commissure without involving the latter and the crura fornicis, however. The internal capsule was invaded by the tumor on the left side. The tumor was firm in consistence and greyish-red in color, interspersed with cystic areas of necrosis.

The microscopical study revealed this tumor to be an astrocytoma originating in the anterior portion of the corpus callosum. A most unusual finding in this tumor was the marked inflammatory reaction. Very heavy layers of lyphocytes and a few plasma cells surrounded many vessels. There were regions where these infiltrations formed great clusters of lymphocytes resembling lymphoid tissue. In other regions smaller lymph cell infiltrations ensheathed the proliferated vessel walls. The pia was slightly thickened but showed no inflammatory change even at the point where the tumor as in the insula Reilii crept into the superficial layers of the cortical substance.

The extension of the tumor in the brain substance allows a rather precise correlation to the clinical symptoms. The symmerical involvement of the anterior portion of the corpus callosum and the invasion of the medullary layer underneath the premotor region and the frontal portion of the insula Reilii, predominatingly on the left side accounted for the Jacksonian type of the epileptic seizures on the right side, the right hemiplegia and the aphasia, while the left side of the body exhibited a positive Babinski and Gordon without marked paresis but with apraxia of the left hand. Again the low blood pressure deserves mention. The organic changes further explain the absence of the abdominal reflexes, a finding noted at the first examination. The very early failure of bladder and bowel movement control should again be mentioned as a possible frontal lobe sign. Unfortunately the psychic changes, (euphoria, dullness, depersonalization and acoustic hallucinations), were not intensively studied. They are apt to be related to a frontal brain affection and presented the only symptom for many months. The striking motor signs occurred late in the final state.

(3). V. S. Bottle blower, a white male, 66 years old. The patient's personality changed considerable about the middle of November, 1941. He lost interest and became irresponsive. Very early in the course of the disease — even before the onset of the mentioned apathy — he lost control of bladder and sphincter ani. He found it very difficult to express himself and to understand ordinary conversation. In addition to these symptoms betraying aphasic traits, signs of apparent apraxia were revealed from the history. The patient did not know how to use his spoon nor how to pull off his jacket. Upon admission to the Hospital, on December 30, 1941, the patient was in a state of confusion.

The neurological examination was extremely handicapped by the confused apathetic state of the patient who did not even understand simple questions. He had to be spoon-fed and exhibited a surprisingly good appetite, eating almost ravenously. Proctoscopical examination confirmed the diagnosis rectal carcinoma.

Premortem a paraparesis of both legs and dysphagia occurred. The patient expired on January 12, 1942.

The autopsy was performed two hours after death. The brain was swollen, weighing 1,785 g. A tumor the size of an apple was seen in the midline, centering in the rostrum corporis callosi and expanding 2 cm frontally from the anterior end of the genu corporis callosi. The tumor invaded the frontal extremities of the gyrus cinguli and the medullary layer over the parolfactory region on both sides. The frontal parts of the caudate nucleus, the anterior limb of the internal capsule, the anterior columns of the fornices were completely replaced by the growth which presented relatively hard whitish nodules surrounded by softened areas, small hemorrhages and fibrous strands. It occluded completely the anterior ventricular spaces. Posteriorly the tumor was bounded by the anterior commissure.

The microscopical study of the rectal tumor revealed an adenocarcinoma. The tumor of the brain proved to be an extensive carcinomatous metastasis in the frontal lobes and in the anterior portions of the basal ganglia, conveyed to the brain probably by way of the lymph ducts accompanying the anterior cerebral arteries.

Correlating the anatomical findings with the clinical symptoms it was seen that a very fast growing frontal tumor produced the first signs about three months before death: dullness, confusion, rapidly progressive deterioration, a slowly advancing aphasia, ravenous appetite and finally spasticity and paraparesis of the legs. These symptoms were clearly based on the destructive lesion in and between the middle parts of both frontal lobes and upon the invasion of both internal capsules. These neurological signs occurred in the final stage, however. Early in the disease the incontinence of bladder and bowels began. One cannot attribute loss of bladder and anal control to the changes in the frontal lobe. It is more likely that they were consequent upon the carcinomatous growth in the rectum and in the bladder wall.

A schematic picture of a mid-saggittal and a frontal section through the brain demonstrates best the site and extension of the tumor in the three cases described above.

COMMENT

Wilson[2] found it convenient, in the classification of frontal tumors, to differentiate between anterior (or prefrontal), middle and posterior groups. In the anterior group (frontal poles) usually no specific syndrome is found unless the neighboring olfactory region is involved. Farther back in the middle third pressure on neighboring structures may reduce or abolish the contralateral abdominal reflexes. Indeed, Case 2 presented early in the disease the complete loss of the abdominal reflexes, in all likelihood related

to the symmetrical bilateral affection of the frontal lobes. The same patient later developed a motor apraxia of the left hand as a result of destruction of the callosal fibers and as a result of the subcortical leftsided lesion which produced the right hemiplegia and motor aphasia. The evaluation of an almost similar syndrome on both sides in Case 3 was precluded by the complete lack of understanding and cooperation of the patient. The mental picture corresponded to an agnosia and ideational (sensory) apraxia. The definite motor palsies in the final stages of Cases 2 and 3 point clearly to a bilateral affection of the posterior third of the front lobes, of the premotor and rolandic region, and their pathways.

In order to assign the mental disorders of our patients to specific parts of the brain, it should be remembered that subcortical medullary tumors are more likely to produce intellectual and emotional disorders. This is particularly true of those tumors which destroy large association fiber systems. "Cortical growths do not have the same tendency to derange the psyche." (Wilson) Thus, it is evident that the striking mental disturbances point to a central medullary localization. The specific topography of the process can be determined only from the additional neurological signs. The very presence of these signs in our first case suggested the possible hypothalamic localization, while in Case 2 and 3 the possibility of a centrally located tumor in the posterior portions of both frontal lobes became apparent. No mental syndrome is sufficiently characteristic of a frontal brain lesion. The often cited symptoms of facetiousness and jocularity were absent in our cases.

The grasping and groping reactions which are thought to be fairly significant of a premotor area affection were not observed. As Wechsler[3] points out, the phenomenon depends on a moderately destructive lesion in area 6 of Brodman.

The question arises as to whether or not the disturbance of bladder and bowel control are caused by affection of the frontal lobes. Kolodny[4], Pousepp[5] and Frazier[6] favor such a viewpoint. Wilson remarks on their frequent occurrence. On the other hand he assumes a widespread cerebral representation of the vesical and rectal mechanisms. It would seem preferable to state only the facts and to postpone final decision of this problem until a larger number of frontal tumor cases has been examined.

The symptom of morbid hunger described as a frontal sign by Watts[7] was noted in our case with the carcinoma brain metastasis. It is certainly worth mentioning in connection with the well known occurrence of ravenous appetite in senile and arteriosclerotic individuals as well as in general paresis patients with predominantly frontal brain atrophy.

It is obvious that the above-mentioned vesical and rectal mechanism and the regulation of food intake are normally influenced by higher psychic functions, the seat of which is believed to be in the frontal brain. This opinion was substantiated during the last few years by the experimental approach to the problem of vegetative functions and their cortical representation. Watts produced changes in the gastro-intestinal activities of monkeys by extirpation and stimulation of the premotor area. He bases visceral sensations in epilepsy and morbid hunger symptoms in brain tumors on premotor area stimuli. He concludes that cortical vegetative centers lie close to the somatic motor centers. This concurs with Frazier's clinical observations of abnormal hunger and should be remembered as a symptom in pure frontal lobe tumors. The older literature refers to similar observations following injury to the frontal brain, (Bechterew[8], Sollier and Delageniere[9]).

On the basis of experimental work with apes, Fulton[10] and his co-workers advanced a syndrome of the premotor region (area 6 Brodman) characterized by impaired skilled movements, loss of motor power, forced grasping reactions, spasticity, and various vegetative disturbances. No agreement exists as yet on the occurrence of these experimentally obtained frontal lobe signs in man. Rarely have *tumors* been of decisive value in clarifying delicate functional signs because of the gross destruction they cause. But a review of various frontal lobe tumors recorded in the literature leads us to believe that the experimentally obtained frontal syndrome of Fulton could be at least partially verified. Frequently, vasomotor signs — (unilateral edemas, lowered blood pressure) — as observed in our cases, respiratory arrhythmia and intestinal disturbances are reported.

The main value of Fulton's findings lies in the elucidation of a combined disturbance of motor and vegetative functions following frontal lobe lesions in human beings, as well as in those of experimental animals.

Suitable cases permit a distinction from the hypothalamic and diencephalic symptomatology. Undoubtedly there frequently occurs overlapping of frontal brain and hypothalamic signs. The complete anatomical study of both the immediately affected and the adjoining areas is decisive. Our Cases 2 and 3 did not show macro- and microscopical changes in the hypothalamic and diencephalic region.

As Fulton attests, the frontally located somatic and mental activities are immediately correlated and integrated in the autonomic sphere. *The close relation* of the *frontal cortex* to the *autonomic nervous system* renders an adequate physiological basis for a relationship, long recognized to exist, between mental states and visceral processes (Fulton).

Frontal brain tumors are of paramount value and importance for the correlation of experimental work and neuropsychiatric observation. Because of their bilateral localization, centrally located frontal tumors should afford opportunity for intensive study of the function of the frontal lobes. In conjunction with careful studies focused on the clinical expression of the vegetative regulatory centers they promise to become a new approach to the problem of psycho-somatic relationship.

DISSCUSSION

Milton Goldberg, M.D. (Chicago) — I was particularly interested in the psychosomatic aspects of the problem presented today by Dr. Kirschbaum. It reminds me a little of the old saying that flees have little flees upon them and so on ad infinitum.

It is interesting, as one has followed the progression of the study of the visceral aspects of emotions. One recalls not so many years ago where the James Lang theory proposed that emotions were peripherally located because at that time our knowledge of the physiological functions gave us the impression that all these changes occurred peripherally and we knew of the adrenalin and other types of changes peripherally.

As further physiologic studies of the brain function became evident, we then found that there were higher coordinating centers in the fedulla. Further, there is still another chain of commands in the mid-brain.

Finally, up until recently it was assumed that the highest integrating centers, as Dr. Lichtenstein pointed out, were in the hypothalamus. Now we are beginning to realize that even on top of that there sits another king in the frontal lobe, and it is particularly interesting because of the physiology behind the operation now being performed, — the so-called frontal lobotomy for the relief of anxiety.

There is a good deal of experimental physiological evidence to indicate that this may be physiologically sound and that there may be so-called anxiety, (if we want to use that term) centers in the frontal lobe and particularly as far as visceral functions are concerned it recalls to my mind a case when I was still a medical student, doing work in pathology.

We had an eighteen month old infant who died as a result of intestinal obstruction and, when posted, was found to have an intussusception. When the brain was opened there was a large hematoma over the frontal lobe.

DR. W. R. Kirschbaum, (Manteno): The only thing that I wish to say is that these interesting cases give us an opportunity to study the vegetative syndrome in frontal lobe lesions. I think the more we watch such cases the more we are aware that the frontal lobe has its special significance in the vegetative symptomatology, and the more we get out of experimental work. The findings of Fulton and his coworkers will be verified by certain clinical cases, including all the other occurrences found from time to time in frontal lobe affections.

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In war or in peace, the statement "Tuberculosis is preventable — curable" must be uttered again and again until this simple fundamental truth becomes part of our national thinking. Will Ross.

A CASE OF ASSOCIATED FACIAL AND INTRACRANIAL HEMANGIOMA

LOUIS B. SHAPIRO
Major, M. C.
CHICAGO

Although Wissung[1] in 1921 and Weber[2] in 1922 discussed the significance of nevi of the face being associated with hemangioma of the brain, it was not until 1928, following the publications of Cushing and Bailey,[3] Dandy,[4] Yakovlev and Guthrie,[5] that this condition received much attention. In 1936, Greenwald and Koota[6] made a comprehensive survey of the 81 cases published and found the following symptoms characteristic of the disease: convulsive seizures, generally Jacksonian in type, hemiplegia, mental retardation and nevus of the skin; also, other important symptoms resulting from ocular changes. They found that the authors were divided as to the pathogenesis of this condition. Lushka[7] and his group were of the opinion that the angiomas resulted from mal development of the blood vessels of the brain and skull, while Virchow[8] and his group believed that these tumor formations were true neoplasms.

Various classifications have been made for these blood vessel tumors of the brain, but that by Cushing and Bailey[3] appears to be the most acceptable because of its simplicity. They classified the nevi into telangiectasis, venous angiomas and arterial angiomas. They further subdivided the venous angiomas of the brain, which were associated with nevi of the skin, into three anatomical varieties, simple, serpentine, and racemose. They also divided them into superficial and deep, the former being confined to the surface, while the latter extended into the brain in a wedge-shaped manner.

Yakovlev and Guthrie pointed out that although angiomas may arise from any structure having blood vessels, the nervous system, skin, and retina seem to be the tissues of choice. Cushing and Bailey showed that the angioblastic tumors are principally confined to the cerebellum, while the angiomata are more common in the cerebrum. Dandy has described the angiomas grossly as being red-brown, sponge-like, compressible, well circumscribed, but never encapsulated. They do not pulsate. Microscopically, there are endothelial-lined blood spaces with scant or no supporting coat. Thrombosis and calcification frequently occur. The pathological reports point out, in addition to the blood vessel tumors, the following changes: hypoplasia of the brain, microgyri, thickened pia, and areas of calcification; the latter being usually in the outer layers of the cortex. The calcifications of these abnormal blood vessels and of areas of the brain, are regrams. These are most often seen in the occipsponsible for the shadows seen in the roentgenoital lobe.

Greenwald and Koota found, that the symptoms most frequently made their appearance in early infancy; usually from six months to one year of age. Convulsions of the Jacksonian type appeared to be the most outstanding clinical finding. In about 51% of the cases hemiplegias soon developed; usually on the side opposite the lesion. Mental retardation was found to be present in about 50%. Eye symptoms, such as unilateral exopathalmos, buphthalmos, palsies, atrophies, etc., occurred in 79%. The following symptoms were also found: tremors, speech impairment, vertigo, vomiting, headaches, deafness, urinary incontenance, intestinal bleeding, and obesity. Other physical developmental abnormalities were noted such as: high arched palate, asymmetry of ears, under-developed testicles, and flattening of the nasal bridge. In a considerable number of the cases, there was a latent period, during which the patient was symptom-free. In a few cases, this period lasted from 8 to 14 years. The growth of the lesion appears to be slow; in some cases the angiomas may remain stationary. Frequently symptoms and growth set in after trauma.

Thirty-four of the 81 cases reported were studied roentgenologically. X-Rays of the skull revealed a characteristic shadow that had a double contour, and in some cases seemed to follow the outline of the gyri and sulci of the cortex. In most of the cases, the shadows appeared to be in the region of the occipital lobe. Some showed atrophy of the brain and marked increase in the vascularization.

The immediate prognostic outlook was not bad. No cases were reported as dying soon after the

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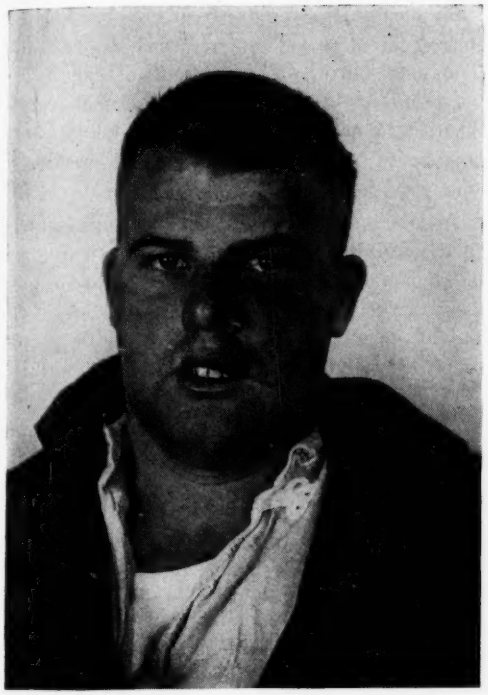

Figure 1

appearance of the convulsion or hemiplegia. However, the long-term outlet does not appear to have been favorable, since most of the cases died in the second or third decade.

The treatment thus far appears to have been confined to three techniques, namely, operation, irradiation, and a combination of both. Cushing and Bailey[3] felt that surgery was not indicated, whereas, Dandy[9] stated that the only hope was in open intervention and extirpation of the lesion. Treatment with radium gave good results in the hands of Vincent and Heuyer.[10] Dyke[11] used roentgen therapy with some success. Magnus[12] recommended surgery and radiotherapy.

The purpose of this communication is to present a case of associated facial and intracranial hemangiomata in whom the outstanding clinical findings consisted of left-sided facial nevus, calcifications in the occipital cortex, localized Jacksonian convulsive seizures involving the right lower extremity, and urinary incontinence.

CASE REPORT

R. M. B., a 24-year old white male, was admitted to the Neuropsychiatric Section of the Station Hospital, Fort Bliss, Texas, on October 4, 1941, with a history of having had an epileptic seizure. Family history was negative for nervous or mental diseases. No other member in the immediate family had nevi. He had a high school education, and then worked as an automobile mechanic until he entered the service in February of 1941. His medical history was essentially negative except for a large venous type of angioma that was confined to the left side of the face. (See Fig. 1.) At the age of 20, dry ice was used in a therapeutic attempt to reduce the unsightly appearance of the nevus, but without success. He remained in good health until August 20, 1941, when he developed cramp-like sensations in his right, lower extremity. He was admitted to the Station Hospital and because of a urinary incontinence, he was sent to the Urological Service. Complete studies, including cystoscopic examinations failed to demonstrate any pathology except for a hyposadias. He was returned to duty and continued until October 4, 1941 when he developed a generalized epileptic seizure and was readmitted to the Station Hospital.

Physical examination revealed an obese white male, 5′ 10½″ in height and weighing 190 pounds. The temperature, pulse and respiration were normal. The positive findings consisted of the above mentioned facial angioma, and the moderate hypospadias. The neurological examination was completely negative. He complained of muscular aches, describing it as though he had had a severe workout the night before. Careful questioning failed to elicit any previous history of localized or generalized convulsive seizures.

Routine laboratory studies were carried out including X-rays of the skull. These demonstrated the presence of areas of calcification in the region of the occipital cortex. They appeared as double contour shadows and seemed to outline some of the gyri and sulci of the cortex. (See Fig. 2.) Upon stereoscopic examination, these lines of calcification were found to be within the cranial cavity about one and one-half centimeters from the inner table. X-ray studies of the gastro-intestinal tract were negative. Spinal fluid examination disclosed the spinal fluid pressure to be within normal limits; the fluid was clear and colorless and all tests were negative. Blood chemistry, blood counts, urinalysis, and basal metabolic readings were of no significance.

While in the hospital, the patient continued to have repeated convulsive seizures of the Jacksonian type. These were confined to the right lower extremity. On several occasions, they became generalized. At no time did the patient lose consciousness. After one of these attacks, neurological examination revealed the presence of a positive Babinski on the right side and localized muscular weakness of the right lower extremity.

Figure 2

COMMENT

The diagnosis of associated facial and intracranial hemangiomata was made because of the Jacksonian convulsive seizures, the x-ray evidence of angiomatous involvement of the cerebral cortex and the presence of the large facial nevus. The possibility of a complicating Hippel's disease was considered but careful funduscopic examination failed to disclose any angiomata of the fundi. Lindau's disease was provisionally ruled out because there were no symptoms of a cerebellar nature. Sturge-Weber syndrome frequently presents a similar clinical picture, but the absence of ocular symptoms excludes this possibility.

This patient presents a number of very interesting findings. His facial nevus, like most of the cases reported, was confined to the skin area innervated by the upper two branches of the trigeminal nerve. In 1906, Cushing called attention to this finding and in one case demonstrated an associated under-development of the Gasserian ganglion. Of considerable interest is the prolonged latent period. This patient developed his first symptoms after 24 years. Most of the cases cited by Greenwald and Koota, showed symptoms during the first year of life, while the longest latent period they recorded was 14 years. The question why this patient developed his symptoms at this time remains unanswered. There was no history of trauma and the only therapeutic manipulation attempted was made four years ago.

Although the x-ray studies show calcifications in the occipital cortex, it is felt that there must be angiomatas areas elsewhere in the brain, possibly in the region of the paracentral lobule on the left side. This might account for the symptoms of urinary incontinence and localized Jacksonian convulsive seizures of the right lower extremity.

CONCLUSIONS

A case of associated facial and intracranial hemangiomata has been presented in which the outstanding clinical findings consisted of left-sided facial nevus, calcifications in the occipital cortex, localized Jacksonian convulsive seizures involving the right lower extremity, and urinary incontinence.

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In Warsaw, Poland, in the first eight months of 1941, 9000 people died of tuberculosis, compared with 3,000 in 1938. Children are malformed and ghost-like, suffering from anemia and softening of the bones. In the first half of 1941, there were 8,000 births and 21,800 deaths. From "A Tale of a City," Off. of War Inf.

NON-TUBERCULOUS LESIONS SIMULATING PULMONARY TUBERCULOSIS

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Non tuberculous lesions of the lungs often simulate pulmonary tuberculosis that quite a number of patients who do not have tuberculosis are labeled as tuberculous and treated as such. Medical treatment of tuberculosis, which fundamentally is rest and general hygiene with a properly balanced diet, is a good thing even in non-tuberculous cases. However, the diagnosis of tuberculosis carries with it a certain social and economic stigma that the person must carry for a long time. His intimate friends and relatives may look upon him as an outcast and a horrible untouchable. He is turned down whenever he applies for any work. He is either turned down by insurance Companies or there is an increase in the premiums that he must pay for his insurance. He may even be denied the privilege and honor to serve his country as a member of the armed forces.

Such being the case it behooves everyone doing tuberculosis work to avoid indiscriminate diagnosis of tuberculosis on patients who may present suspicious findings, but not clear cut evidence. Although it would be best to treat such patients as tuberculous, until proven otherwise, a definite diagnosis of pulmonary tuberculosis should be withheld until positive evidence is present to justify such diagnosis.

With the great urge on the part of phthisiologists to control the tuberculous patient in the earlier stages of the disease, the chances for erroneous diagnoses become definitely increased. This is especially true because of the large number of chest x-rays that are taken routinely of various groups of patients. Industrial plants, the Army and Navy, and a number of welfare groups have made it a point to x-ray the chest of any and all persons who come under their influence. Routine x-rays are a good thing, but the proper interpretation of these shadows is most important. The film examiner who sees a shadow may very easily call it definitely a tuberculous lesion, but very often attributes to it also the thought that such a lesion is active. Quite frequently a patient with a healed primary lesion would be classified as a case of active tuberculosis when experience has shown us that such patients will fare very well with that healed lesion, but still carry the evidence of scar or calcification for the rest of their lives. We often also see patients who give a definite history of close contact to an active case of tuberculosis, who also present some of the ear marks of toxicity such as tiredness, afternoon fever, night sweats and cough, and even have evidence of moisture in the lung, without any x-ray evidence of pulmonary pathology. Such a case may only present a slight shrinkage of the upper three intercostal spaces and no exudative infiltrate. Such a case may go on with his symptoms and if not treated as a tuberculous patient may show x-ray evidence of pathology one to two years later.

The diagnosis of pulmonary tuberculosis becomes more difficult especially in cases where non-tuberculous lesions exist which simulate tuberculosis. Such lesions as early upper sulcus tumors, upper lobe bronchiectasis or pulmonary abcess, upper mediastinal tumors and upper lobe carcinoma of the lung are quite difficult to differentiate without a thorough study of the patient.

Proper treatment of the non-tuberculous lesion will make the difference between life and death of such patients especially if neglected until the later stages of the disease. To treat a case of pulmonary abscess with collapse therapy will in most cases be fatal to the patient. To give potassium iodide to a case of tuberculosis, in whom a fungus infection is suspected, may also prove disastrous to the patient. To allow a patient with an intrathoracic tumor to go on to an inoperable stage, while he is treated for tuberculosis, is very negligent and unkind to humanity.

Realizing the pitfalls a phthisiologist may fall into and in behalf of a better break given to the patient, this paper is written to emphasize the importance of more careful study of the patient with pulmonary findings. It is a known fact that the greatest majority of patients admitted to a sanatorium are afflicted with pulmonary tuberculosis. Such patients usually have a clear cut history of contact to a case of active

tuberculosis, typical symptoms and physical signs, characteristic x-ray findings, and frequently a positive sputum. Here and there, however, a pseudo-tuberculosis case finds its way into the sanatorium and only a careful study of such a patient will result in a correct classification of the case. Such patients may give a history of cough, or loss of weight, or hemoptysis, or even x-ray evidence suggestive of possible pulmonary tuberculosis. Upon careful study such patients may turn out to be fungus infections, bronchiectasis, pulmonary neo-plasm and a number of less common pulmonary lesions.

In this paper we shall attempt to analyze one hundred consecutive cases who had an admission diagnosis of pulmonary tuberculosis and on more detailed study they turned out to be non-tuberculous.

Eventual diagnosis in these patients in the order of its frequency was Bronchiectasis (18%); Asthma (14%); Pulmonary cancer (10%); Pneumonoconiosis (10%); Cardiac hypertrophy (7%); Bronchitis (7%); Pulmonary abscess (6%); Myocarditis and Endocarditis (5%); Aortic aneurysm (4%); Hodgkins disease (4%); Non-clinical tuberculosis (4%); Mitral insufficiency (2%); Pulmonary syphilis (2%); and 1% each of empyema, post pneumonic pulmonary residual, influenza, pleurisy, actinomycosis, cirrhosis of the liver and catarrhal jaundice. Such a list of lesions emphasizes the importance of not considering facts at their face value, but carefully analyzing them.

It would be of value to analyze the case records of these patients in the hope of pointing out where the referring physician fell down in his diagnosis. In the study of the primary complaint it was found that 74 had cough, in 32 of whom the cough was productive, the sputum amounting from one to eight ounces per day; in 8 there was a hemoptysis; and in 3 there was a frank pulmonary hemorrhage. Loss of weight was found in 70 cases, of whom 44 gave an average of 17 pounds, with a maximum loss of 70 pounds and a minimum loss of 4 pounds. Tiredness was the next complaint in frequency with a total of 41 cases, 20 of whom complained of tiredness on exertion, and 21 complained of tiredness on what may be termed a normal mode of living. Definite dyspnea was encountered in 16 cases. Twenty patients complained of night sweats and twenty stated frequent recurrence of colds. It is interesting to note that in this group 88 were males and only 12 were females, 97 whites and 3 colored.

The average duration of the symptoms was twenty months, although one patient with asthma suffered for 12 years, and the minimum duration was for six weeks.

It is important to emphasize that in 90% of the cases there was no contact to tuberculosis, while in 9 there was a definite history of contact and in one case the patient was not certain.

The past history in this group is of interest because the majority (49%) gave no history of previous trouble with the lungs. Twenty-two gave a history of pneumonia and of this group four had two attacks of pneumonia. The next in frequency was influenza which occurred in 11% of the cases. The following entities were encountered in the order of their frequency: children's diseases (4%); chronic bronchitis and pleurisy each 3%; asthma 2%; grippe 1%; cold 1%; and symptoms after tonsillectomy in 1%.

An analysis of the etiologic significance of occupation of these patients does not reveal anything definite because it represents a cross section of the normal activities of any group and no etiologic factors can be attributed to the occupation of these pesons. In this group 39 were common laborers; 12% were mechanics; 10% were clerks; 7% housewives; 5% peddlers; 5% without any occupation; 4% painters; 3% cooks and bakers; 3% miners; 1% stone cutters; 2% tailors; 2% upholsters; 2% chauffeurs; 2% carpenters; 1% porters; 1 farmer and one optician.

Of great importance is the fact that in all the patients in this group the sputum was consistently negative. The temperature was within normal variations and the Wasserman was negative in 92% of the cases.

The x-ray study of these patients has been of definite value in eliminating the diagnosis of tuberculosis since 99% of them showed no definite x-ray evidence of pulmonary tuberculosis.

The use of bronchography, diagnostic pneumothorax, tuberculin test and complete blood and

urine study has been resorted to in many of the cases to arrive at a definite conclusion. Broncrography has aided us in making a definite diagnosis of bronchiectasis in 10 cases while a careful study of the sputum revealed actinomycosis in a case which showed very suspicious clinical and roentgen findings of pulmonary tuberculosis. On the other hand a careful study of the patient including a biopsy of the glands from the axilla was necessary to determine the presence of Hodgkins disease in one case. The characteristic history of acute pneumonic onset with delayed resolution and the expectoration of large amounts of foul sputum with typical findings, ellicited the diagnosis of pulmonary abscess in 6 cases.

CONCLUSIONS

The study of these hundred consecutive non-tuberculous patients who were admitted to the tuberculosis sanatorium with the diagnosis of tuberculosis emphasizes the following important points:

1. Not all patients who cough and expectorate and complain of pain in the chest have pulmonary tuberculosis.

2. The referring physician, as well as the sanatorium resident physician, should rule out all other possibilities before making a diagnosis of tuberculosis on all newly admitted patients. In this way a good deal of embarrassment on the part of the patient and the doctor will be eliminated.

3. A complete study of each patient must, of necessity be made on all newly admitted patients and during this period care must be taken to keep these patients from close contact with cases of active tuberculosis. An admission ward where such studies can be carried out in complete separation from the rest of the sanatorium patients is an ideal to be sought after by all sanatoria.

4. All possible methods of study should be made in patients who have a negative sputum and not a clear cut clinical picture of pulmonary tuberculosis. Such studies should include complete blood and urine examination, tuberculin sensitization test, X-ray, basal metabolic studies, the examination of the gastric contents for tubercle bacilli, and examination of the sputum for tubercle bacilli, as well as other pyogenic organisms, including fusospirochetes and fungi.

5. By means of such careful studies we will be able to avoid falling into diagnostic pits and prevent prolonged hospitalization of patients who have no business being in tuberculosis sanatoria. It will be safer and less embarrassing for them if they are turned out as non-tuberculous shortly after admission to the sanatorium.

Experience everywhere has shown that the stage of tuberculosis on admission to a sanatorium is the most important single factor in its prognosis, while recognition of tuberculosis before it has reached the infectious stage is the only certain way of checking the spread of the disease within the family group.

No history of exposure to tuberculosis can be obtained in more than one-half of all diagnosed cases. This fact in sufficient indication that any well-balanced program for tuberculosis control must include other comprehensive diagnostic procedures, such as mass examination of specially susceptible groups. From "The Modern Attack on Tuberculosis" by Chadwick and Pope.

Employers should recognize that workers who have old, arrested and clinically non-significant tuberculous scars in their lungs present almost as little risk as the non-tuberculous workers. In some instances, old experienced key workers have been discharged following the disclosure of such lung scars by plant X-ray surveys. This practice, we are all agreed is unsound — medically and economically wasteful.

Employees who have fallen ill with tuberculosis and are successfully treated should be returned to their old jobs under medical supervision when those jobs are suitable and when medical opinion finds the employee capable of full-time work. Louis E. Siltzbach, M.D., The Milbank Quarterly, Jan. 1943.

IMPORTANT

Send changes of address to 30 N. Michigan Ave., Chicago. Changes received after the 1st of the month cannot go into effect until the following month.

Honor Roll

DOCTORS IN SERVICE WHOSE NAMES DID NOT APPEAR IN THE LISTS PUBLISHED PREVIOUSLY

BY NAME AND COUNTY

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Alexander, John R., Coles
Armstrong, R. B., Winnebago
Avakian, Vaughn A., Cook

Baker, Kenneth, Knox
Balsamo, Nicholas J., Cook
Barber, Kent Walker, Adams
Bard, G. W. I., Iroquois
Batko, Bernard B., Cook
Beanstock, Sam, Cook
Beare, John Byron, Randolph
Belyea, Reginald J., Rock Island
Bergstrom, Paul L., De Kalb
Bezdek, Joseph L., Cook
Black, Crawford H., Marion
Bohr, George W., Cook
Bolla, Elder L., Cook
Bolotoff, Bernard E., Winnebago
Borden, George, Adams
Borkenhagen, William, Cook
Borrowman, Robert C., Cook
Borsheim, Raymond S., St. Clair
Bowser, Albert W., Cook
Brooks, Clyde M., Jackson
Brown, Cecil D., Cook
Brown, Theodore Wallington, Randolph
Buckner, Ryland, Iroquois

Campagna, August J., Cook
Campagna, Philip L., Cook
Carey, George Matthew, Will
Carey, James Campbell, Will
Cervera, Dominic L., Cook
Changnon, Eugene A., Kankakee
Clark, Cliff L., Iroquois
Colangelo, Corneuus C., Cook
Conklin, J. O., Edgar
Coopersmith, Max M., Cook
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Davis, Dave, Cook
Davis, Joseph A., Cook
Deering, William V. B., Cook
DeStefano, Frederick, Cook
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Dilts, Preston V., Pike
Diorio, Philip J., Cook
Dolan, Larsandrew, Cook
Dorner, Ralph A., Lee
Drago, Rosario C., Cook
Dvorak, Emanuel R., Cook

Eckert, Joseph, Cook
Edison, Earl, Cook
Edwards, Alfred Pace, De Kalb
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Ehrler, Glenn G., Du Page
Epstein, Hyman H., Cook
Ernest, Dwight M., Peoria
Evans, Byron H., Greene
Ewald, William L., Lake

Falk, Henry, Kankakee
Feinhandler, Emanuel, Cook
Ferrell, Robert V., Saline
Fonner, Robert M., Cook
Foucek, B. C., Cook
Frigo, Leo H., Cook
Furman, Leon Michael, Cook

Gaines, Reuben B., Cook
Gaetano, Charles P., Cook
Galla, Joseph W., Cook
Garramone, Pasquale M., Cook
Giannini, Michael W., Cook
Gilula, Adolph, Cook
Gino, Marcello V., Cook
Goldberg, Abraham H., Cook
Goldfine, Manuel, Cook
Goodman, Maurice, Cook
Gordon, Richard J., Cook
Gray, J. Gilbert, Cook
Green, Martin W., Cook
Greenburg, Benjamin J., Cook
Greer, Miller, Fayette
Gregory, Benjamin J., Cook
Gross, A. J., Cook
Grossman, Harry D., Cook
Grudzien, Stanley R., Cook

Hallenbeck, George G., Cook
Halperin, Jacob, Cook
Hammatt, Harold Wayne, Macon
Herstein, David, Cook
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Hofrichter, Frank C., Cook
Hohman, Roy M., Cook
Hollender, Marc H., Cook
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Ihrke, Irvin Arthur, Kendall
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Iseberg, Russell G., Cook
Izbicky, Naftula, Ogle

Jakubowski, Casimir L., Cook
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Jarosz, Adolph J., Cook
Jones, Joseph J. Jr., Ford
Jones, Ralph E., Cook
Juliano, Aniello A., Cook

Kadas, Louis, St. Clair
Karr, John B., Cook
Karr, Walter J., Cook

Karras, Ray W., McLean
Kazak, John J., Kane
Keller, Paul K., Iroquois
Keller, Robert Stephen, De Kalb
Kellner, Aaron, Bond
Kessler, Charles T., Cook
Kimble, Harley E., Cook
Klamka, Herman G., Cook
Knaisel, Stephen A., Cook
Koivun, Wilhart, Rock Island
Kruglick, John S., Cook
Krupka, John M., Cook
Kunsch, Ladislaus J., De Kalb
Kutza, Michael J., Cook

Lally, John M., Cook
Lane, Shirley William, Kankakee
Langner, Mitchell E., Cook
Lawson, Edwin H., Cook
Lebovitz, Louis, Cook
Lenz, Charles R., Sangamon
Lerner, Sydney A., Cook
Leventhal, Harry, Cook
Lim, Poon Lee, Will
Lipson, Henry I., Cook
Lowy, Howard Arthur, Peoria
Lynch, James I., La Salle

MacLeod, Sidney J., Cook
Maitino, Michael G., Cook
Malanca, Francis X., Cook
Maloney, Edward J., Cook
Mann, Lawrence S., Cook
Marcus, Sanuel M., Cook
Markin, Leonard E., Cook
Markley, Lloyd M., Cook
Marks, Richard L., Cook
Marlay, Myron G., Cook
Mason, John C., Vermilion
McGuire, James P., Cook
McIntyre, Caryl C., Cook
Meier, Donald A., Cook
Meisenheimer, Harold, Cook
Mencarow, William J., Cook
Mershon, Donald G., Cook
Milewski, Edward W., Cook
Moreland, Randall B., Bond
Moser, Herman R., Kane
Mullen, V. V., Fulton
Mullon, Vance S., Cook
Murphy, Joseph P., Gallatin
Murphy, Raymond B., Cook
Musfelt, William S., Christian

Neal, William B. Jr., Cook
Neider, Samuel, Iroquois
Neiman, Aaron, Cook
Nelson, Glenn S., Cook
Nelson, Melvin J., Cook
Newman, Louis B., Cook
Norris, Millard F., Cook

Orloff, Morris P., Cook
Orndorff, John R., Cook
Ovenu, Harold, Cook
Overby, Rudolph W., Cook

Pagano, Alfred L., Cook
Palumbo, Carl F., Cook
Parisi, Patrick, Cook
Parrilli, Samuel, Cook
Paul, Tom D., Cook
Pava, Charles, Cook
Peterson, Ralph O., Cook
Petrazio, Joseph A., Jackson
Pfeiffer, Carl Frederick Herman, Adams
Pfisterer, William H., Cook
Picard, Arthur P., Cook
Pierzynski, Boles S., Cook
Pisarski, Edmund S., Cook
PoKornig, J. W., Will
Pontius, John R., Richland
Ponzer, Ernest D., Cook
Prevo, Samuel B., Clark
Puckett, F. L., Christian
Pugh, Charles E. Jr., Cook
Pummer, Lewis R., Cook
Purcell, Matthew J., Cook
Purcell, P. W., Cook

Quint, Harold A., Cook

Rackleff, Melvin M., Adams
Randell, Harold E., Cook
Redmond, R. N., Whiteside
Renz, Theodore H., Cook
Reynolds, Edwin C., Cook
Rieger, Karl B., Stephenson
Roberts, Dewey Minnis, Madison
Rosenberg, Rudolph, Cook
Rosenberg, Sidney, Cook
Rosenblum, Arthur, Cook
Rosenblum, Samuel S., Marion
Ross, Edward Y., Ford
Rubert, Samuel R., Cook
Rushakoff, Oscar, Cook
Ryan, Lawrence D., Cook

Sanders, Alexander, Cook
Sanfilippo, Girolamo, Cook
Schiff, Charles A., Cook
Schipper, Irving S., Cook
Schmidt, William B., Crawford
Schneider, Martin, McLean
Scholnik, Sol, De Kalb
Schroder, Harold M., Livingston
Schwartz, Joseph, Cook
Schwartz, Nathan F., Cook
Scott, William C., Jackson
Shaftel, Norman, Cook
Shafton, Arthur L., Cook
Shapiro, Bernard, Cook
Sharp, John R., Macoupin
Sheade, Martin, Cook

Shuman, H. W., Rock Island
Silverman, Meyer, La Salle
Simonelli, Mario, Cook
Sinow, Sidney A., De Witt
Sitney, Julius Jay, Cook
Snyder, Morris, Cook
Sobel, Robert A., Greene
Solbrig, Charles R., Cook
Spadea, Samuel, Cook
Spafford, Howard Everett, De Kalb
Stanbery, George, Fayette
Starcevich, Paul J., Cook
Steiniche, Aage, Livingston
Stricker, Clifford J., La Salle
Strzyz, Joseph J., Cook
Swiontek, Henry S., Cook

Taylor, Jack, Jackson
Terrell, E. E., Edgar
Thompson, Luther C., Cook
Tonkens, Samuel W., Kane
Thompson, Neill Archie, Saline
Tourney, Guy L., Adams
Tovarek, Joseph J., Cook
Townsend, William O., Du Page
Tratt, Elliott M., Grundy
Trimmer, Albert Ogden, Piatt
Twente, Julius, Cook
Twente, George Edward, Alexander

Urban, Sigmund B., Cook
Ushkow, Moe E., Cook

Valencia, Elpidio I., Cook
Verhaag, Joseph E., Cook
Vernon, George H., Sangamon

Wagner, Leonard M., Cook
Waller, George, Macon
Wagner, Mathias A., Cook
Walker, John V., Cook
Walvoord, Carl A., Cook
Weiler, Kenneth J., Cook
Weintraub, Jerome B., Logan
Weiss, Alvin, Cook
Weiss, Manuel B., Cook
Welsh, John W. Jr., Du Page
Wexler, Ralph, Christian
Whitehead, Ira Condict, Will
Wilkinson, George W., Mason
Whitaker, Walter M., Adams
Winn, John P., Jackson
Wiza, Francis L., Cook
Wojtalewicz, Lucian F., Cook
Woodruff, Lewis W., Will
Woolley, Clifton W., Cook

Yacullo, William A., Cook
Zitman, Irving H., Cook
Zurawski, Walter F., Cook

Clinicopathologic Conferences

J. J. Moore, M.D., Department Editor.

PRESENTATION OF CASES BY
VICTOR LEVINE, M.D
St. Anthony De Padua Hospital
CHICAGO

THREE CASES OF CORONARY OCCLUSION

CASE 1 — RECENT OCCLUSION WITHOUT HYPERTENSION

Dr. Frank Hrejsa: This 36-year old patient was well until three days before his death. He had been working very hard, however, at several jobs which required marked physical effort. He took sick very early in the morning with a feeling of compression in the chest and a slight moderate pain which extended into both arms. He was slightly nauseated but did not vomit. He did not see a doctor, however, until that evening when he walked into the doctor's office after climbing a flight of stairs.

A diagnosis of cardiac condition was considered most likely and hospitalization was advised and refused.

That night he slept very little and walked up and down most of the night. The next morning another doctor was called and he felt that the diagnosis rested between coronary occlusion and a ruptured ulcer. The first physician saw him later that day and again advised hospitalization. He did not go to the hospital, however, until the next noon, having been sick then 2½ days. The interne considered the same two diagnoses. A surgical consultant was called and he felt the case was definitely not surgical and suggested a diagnosis of pneumonia because of his rapid breathing which was present during most of his hospital stay. Two attempts to type sputum, however, were unsuccessful. His blood pressure, which was 120/70 when first seen by his physician on the first day of his illness later dropped to 85/55 and then rose to 108/60 and 120/60 during his hospital stay. He seemed to be in about the same condition until just about 24 hours after his entrance he became suddenly worse and died.

On two occasions the patient had sugar in the urine but the blood sugar after admission was found to be 129. He was given, however, 40 units of insulin plus glucose and on his last day the urine had no sugar.

He had been perfectly well until this onset. The only fact in his present history which would have any bearing on his illness was that he had been working at some desk job and on account of the war work, he turned to some real physical labor.

Dr. Victor Levine: At autopsy this patient was quite well nourished. The pericardial sac contained about 20 cc. of cloudy fluid with a considerable amount of loose fibrin. Here in this pan is the heart and I think you can see that over the left ventricle there is considerable fibrin even on the fixed specimen. In the apex on the inside there is a small adherent blood clot. The myocardium is soft and purple-gray except beneath the fibrin where it is a lighter yellow-gray. The important finding is in one coronary artery. There were a few fatty plaques thruout both coronaries and in the descending branch of the left coronary artery there was a single calcified plaque which narrowed the lumen; on this plaque there was an adherent purple-gray thrombus which occluded the lumen.

I have an arrow touching the edge of the thrombus so that you can see that that is the site of the coronary occlusion in the anterior descending branch of the left coronary. On the cut surface of the myocardium you can see a number of lighter gray areas of recent infarction. You have to look a little sharply in the fixed specimen but it still shows up very well.

Here in this pan is the pancreas. It weighed 60 gms. and appears entirely normal grossly but is small. It might be a so-called atrophy of the pancreas and he probably had it thru life.

In view of the low blood sugar, he was not a diabetic but because of the small size of the pancreas and the sugar in the urine, he probably was an incipient diabetic. On the other hand a certain amount of gylcosuria has been reported in cases of coronary occlusion; since the cardiac infarct was very large in this case, this may have accounted for the sugar in the urine.

The only other thing of note in the autopsy was an 8 mm. infarct in the left kidney. The only way that I can explain that is that an embolus from the mural thrombus in the heart occurred. This infarct in the kidney may possibly explain the albumen in the urine.

Anatomic Diagnosis. Thrombotic occlusion of the anterior descending branch of the left coronary artery developing on a localized sclerotic plaque; marked infarction of the anterior wall of the left ventricle; marked fibrinous pericarditis over the infarct; marked mural thrombus on the inside of the infarct; small size of the pancreas.

DISCUSSION

Dr. L. A. Holub: This man had a job at a desk pushing a pen but he was also a good workman at carpentry and other lines and his friends kept him busy in his spare time doing odd jobs of physical labor for them which he was always quite ready and willing to do.

Question: How about his history as to alcohol and tobacco?

He was not an alcoholic but he did smoke some.

Question: How do you account for the infarction in the heart?

This was very recent, not more than two days or so.

Question: Any infarction before?

Nothing known of any before. His blood pressure never got above 120/60 during his illness. His heart weighed 420 gms. and he perhaps had some degree of hypertension before he got sick.

Question: Why did he die so suddenly with this condition? A number of people live on with a condition like this.

The fact that he did not go to bed when he became ill probably contributed greatly to his death. He became ill early on a Wednesday morning and did not see a doctor until Wednesday evening and instead of going to the hospital as his physician advised, he went home and walked the floor all night. He did not give himself a chance to recover.

Question: With such a blood pressure as he had and with this history, wouldn't you always suspect a coronary occlusion?

His blood pressure at my office was 120/70. The next day it was about 85/55 at home. After being given the glucose in the hospital, it went up again to 120/60. The consultant asked him if he had any pain in the chest. He closed his eyes for half a minute and did not speak and then he said that he did have some pain in the chest. This indicated that the pain was never very severe or outstanding.

Question: Wasn't this rather an early age for a coronary condition such as he had?

I have known of a patient having this same condition at the age of 32. The medical journals have cited a few cases in children.

CASE 2 — RECENT OCCLUSION WITH HYPERTENSION

Dr. Anton Vlcek: This 62-year old man entered the emergency room on April 22, 1942 at 5:00 A. M. with a history of sudden onset of pain in the cardiac region with pain radiating to both arms. This pain was preceded by a feeling of dizziness and weakness and he gave a history of a previous hypertension.

On examination he had an ashen-gray color, cyanosis of lips and finger tips, marked cardiac pain and dyspnea. A diagnosis of coronary occlusion was made and oxygen and morphine sulphate were given.

There was no paralysis. Heart was slightly enlarged, heart tones good but pulse irregular. *Blood pressure was 190/120; temperature, 96.8;* pulse, 68; respiration, 24.

The following day he became irrational, got out of bed, refused oxygen and later was stuporous. Temperature began to rise to 101°; pulse, 168; respiration, 32; blood pressure fell to 160/100.

He was unable to void and 1100 cc. of urine were obtained by catheter. Urine showed 4 plus albumen, casts and pus cells. Red Blood Count, 4,500,000; White Blood Count, 10,000; Hemoglobin, 84%. The following day the blood pressure had dropped to 130/80. Temperature rose to 105°; pulse, 170; respiration, 44. He became comatosed and expired about 60 hrs. after admission.

Dr. V. Levine: At autopsy this man was quite well nourished. He had an old right rectus incision which apparently was due to the removal of the gall bladder and appendix. The left pleural cavity contained about 100 cc. of blood-tinged fluid. The pericardial sac contained 50 cc. of clear fluid.

Here is the heart which weighed 650 gms. Over the anterior portion of the left ventricle just above the apex there is a 5 x 3 cm. area with soft muscle covered by a thin layer of fibrin. On cut surface this muscle is a softer, brownish-gray. On the inner side of this area and extending to the left to cover the entire apex there are loosely adherent purple blood clots.

The left coronary artery has a number of fatty and calcified plaques which occupy about three-fourths of the circumference. In the anterior descending branch 2 cm. from its origin the lumen is somewhat narrowed and contains two somewhat loosely adherent blood clots which are 10 mm. long and 1 mm. in diameter. They appear to almost occlude the lumen.

Here are the kidneys which weighed about 250 gms. together. They are very granular and have a number of cysts. Sections show only a benign nephrosclerosis.

Here is the left adrenal. It is buried in fat and I did not attempt to take it out. The only thing about this adrenal is that there were several 3 to 8 mm. yellow nodules. These are cortical adenomas which some persons feel give rise to hypertension.

Anatomic Diagnosis: Recent occlusion of the anterior descending branch of the left coronary with an infarction of the myocardium and a pericarditis; mural thrombi in the apex; generalized coronary sclerosis; marked eccentric hypertrophy of the heart; benign nephrosclerosis; and cortical adenomas of the left drenal.

DISCUSSION

Dr. V. Levine: At the autopsy I did not think the anterior descending coronary artery was completely occluded, although the thrombi were there. But all the muscle in the infarcted area had a definite brownish appearance and must have had its blood supply cut off. The infarction is not nearly as large in the previous case. All I could say was that with hypertension there is a certain amount of vascular spasm. This, plus the thrombi, probably explains the infarction, but I am unable to say that one large vessel had an organic occlusion. The unusual thing about this case, of course, is the degree of hypertension; even after the onset of pain he had a blood pressure of 190/120.

Question: When did the mural thrombus form?

It began to form shortly after the infarction.

Question: In the event this man could have lived, what would have happened to this mural thrombus?

It would have probably become more or less organized and fused with the thin fibrous wall of the heart and then later probably have formed a portion of the wall of an aneurysm.

Question: What caused his coma?

The attending doctor thought he developed something in the brain such as an embolus. The marked coma was not called to my attention at the time of the post and we did not post the head. This man was quite stuporous for at least a whole day before his death so that he may have had an embolus to the brain. On the other hand he had no paralysis and may have had only a toxic degeneration. A bloody spinal fluid would have indicated a hemorrhage.

CASE 3 — RECENT AND OLD OCCLUSIONS

Dr. L. L. Turner: This patient was a 71-year old man who was known to have hypertension. His blood pressure was 230/130 until he had a definite attack of coronary occlusion on June 6, 1938 at which time his blood pressure dropped to 158/90. He made a good recovery at home

and was followed by the means of serial electrocardiograms.

At 7:40 A. M. of his day of entrance he had a precordial pain leading to the left arm and hand and compression about the heart and neck. His blood pressure on entrance was 110/85 and his pulse 112, small and irregular. The heart sounds were low. A tablet of one 1/100 of a grain of nitroglycerin and an ampoule of coramine gave him relief but at 9:15 A. M. the pain recurred. He became pulseless and cyanotic. Stimulation and oxygen had no effect and he died at 10:50 A. M. with a diagnosis of a second coronary occlusion. No electrocardiagram was made during this second attack.

Dr. V. Levine: At autopsy this man was well nourished. Here is the heart which weighed 620 gms. I am showing it from the posterior aspect which is not the usual way but it shows the essential pathology a little better. Here I have an arrow pointing to the right coronary about 4 cm. from its origin where the lumen is occluded by a recent purple and purple-gray thrombus which is adherent to a calcified plaque.

His coronaries in several places had a number of fatty and calcified plaques which occupied about three-fourths of their circumference. Over here in the left anterior descending coronary and just about the same place the other two cases had their involvement, there is a complete occlusion of the lumen. Careful inspection shows, however, that the left coronary had two anterior descending branches, one placed to the left of the other. The left-hand one is the one just mentioned as being completely occluded. The right-hand one divides into superficial and deep branches and is not occluded. I assume that this right-hand branch enlarged greatly since the old occlusion; curiously enough it never really served all the area of involved myocardium on the anterior wall.

On the anterior wall of the left ventricle there is a softened 6 cm. area which protrudes about 2 cm. and is thinned to 5 mm. It is largely replaced by scar tissue and is the area served by the occluded vessel. On the posterior wall of the left ventricle there is an indefinite 3 cm. area which is softened and brown-gray. This area received its blood supply from the right coronary.

Anatomic Diagnosis: Recent thrombotic occlusion of a moderately calcified right coronary artery with a recent infarction of the posterior wall of the left ventricle; old occlusion of the left anterior descending branch with a moderate aneurysm on the anterior wall of the left ventricle; marked eccentric hypertrophy of the heart.

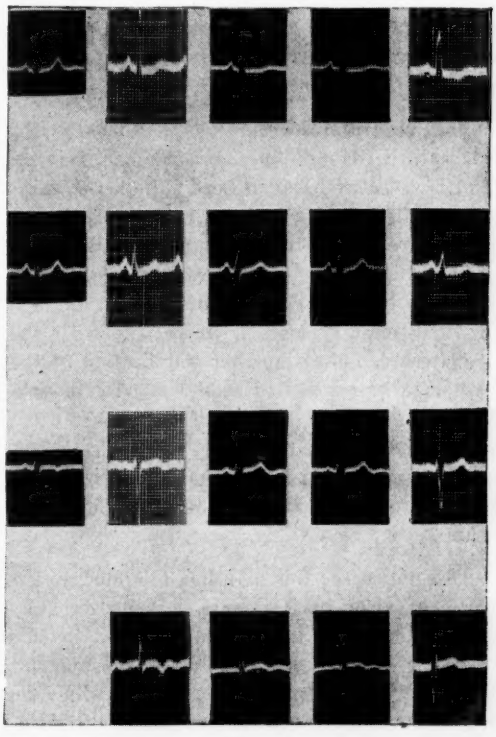
DISCUSSION

Dr. V. Levine: Despite his blood pressure of 110/85 I could say at autopsy that he had a previous hypertension. This is born out by the previous blood pressure reading in 1938 of 230/130.

Dr. F. L. Foran: This man had five electrocardiograms covering a period of eight years. (See illustration). The first one was taken in 1934. At that time Lead IV, which is a precordial lead, was not commonly used and we do not have that particular pattern for comparison. This 1934 electrocardiogram is essentially negative for a man of the age of 63. Despite

Case J. Z.

Age 63	Age 68	Age 69	Age 70	Age 71
1-19-34	6-7-38	3-7-39	2-7-40	1-2-42



the very high blood pressure noted clinically at that time the only evidence produced on this electrocardiogram is the sharp left axis deviation due doubtless to the left ventricular hypertrophy.

The normal T wave of Lead IV is a rather tall upward deflection. You will notice then the sharp contrast presented by the sharp inversion of the T IV in this patient's 1938 record. There is a definite lowering of the T wave in Leads I and II and a slight depression of their S-T intervals but on the whole the changes in the three standard leads are not marked. The major evidence of damage is therefore seen in Lead IV. That is of some interest as it sometimes happens that the diagnosis hangs largely on the chest lead as it did in this instance. This tracing was interpreted as showing major evidences of myocardial damage compatible with a recent coronary occlusion. This type of electrocardiogram is suggestive of infarction involving the anterior surface of the myocardium, although not wholly typical of that lesion. Clinical correlation was found in the character of the attack on June 6, 1938 and the marked drop in blood pressure which succeeded it. Now we find further correlation in the necropsy finding of an old scar and moderate aneurysm of the anterior wall of the left ventricle.

The electrocardiogram taken nine months later at the age of 69 shows further changes. The T waves are lower in Lead I, higher in Lead III, and less deeply inverted in Lead IV. That progressive change tended to indicate the acuity of the attack preceding the earlier record. You will note that the electrocardiogram at the age of 70 is almost identical in pattern with the 1939 record, indicating that stabilization of the pathologic processes had been reached two years later. In 1942, at the age of 71, we again see no significant variation from the 1939 electrocardiogram. These interpretations were in accord with the quiescent clinical course of those four years.

To summarize: this man had tolerated an extreme hypertension for years with no recognizable cardiac impairment of function. At the age of 68 he has an occlusion of the left anterior branch of the coronary artery from which he recovers and maintains a state of health compatible with his years until an entirely separate occlusion involving the right coronary artery was rapidly fatal on April 8, 1942, at the age of 71. Unfortunately the acuity of the attack prevented an electrocardiogram of this final event.

Dr. V. Levine: In the second electrocardiogram, are those changes typical of anterior infarction as far as they go?

Dr. F. L. Foran: Yes. In so far as they go, they are of the anterior infarction type. In the anterior infarction you usually get your material changes in Leads I and IV. The T IV inversion is typical. It would have been more decisive if T I were also inverted instead of showing only a relative lowering. The posterior occlusion shows a Q III-T III pattern, that is a deep Q II and deep T III; usually there is a contrasting positive deflection of T I and off-set of the S-T intervals in these two leads. If we had obtained a record in the terminal attack, I would have expected such a pattern to be superposed on the residual evidences of the anterior infarction.

Dr. V. Levine: It is unfortunate that the last electrocardiogram was not obtained. I have posted a few cases with a clear-cut history and findings of cardiac infarction but did not find anything suggestive of occluded vessels; in this second case there was only a narrowing of the vessel and yet clinically there was an infarction which could be demonstrated post mortem.

Dr. F. L. Foran: There has always been a question as to why occlusion occurs so abruptly. Why does the slowly developing atheromatous degeneration of the artery over a period of years terminate so abruptly in an occlusion? The blood flow shuts off as though a valve were suddenly closed. Is the closure due to the formation of a clot or to some sudden disruption of an atheromatous plaque or to a hemorrhage into the diseased arterial wall?

Dr. V. Levine: Three causes for sudden organic occlusion of the coronary arteries can be given. In order of frequency they are thrombosis, atherosclerosis and embolism. In any of the three the blood flow may be shut off suddenly, as Dr. Foran suggests, as though a valve were closed. It is easy to understand how an embolus can do this but a little bit harder for the other two causes. Cases I and III are examples of

thrombotic occlusions. These developed on sclerotic plaques. If the plaque is ulcerated there is more tendency for a thrombus to occur.

The assumption is that a thrombus is built up gradually. One would assume that collateral coronary circulation would be developed if the narrowing of the lumen were progressive. For some reason, however, the coronary sometimes does appear to do that very efficiently and at that point is apparently where the narrowing gets way ahead of any collateral formation. At any time thereafter a slight increase in the size of the thrombus would close the lumen.

It is even harder to explain a complete occlusion on a pure sclerotic basis and yet it apparently occurs. The narrowing in such instances must be even slower than that produced by a thrombus and yet when the lumen is finally closed completely, its effect is practically identical with that of an embolus causing a myocardial infarction.

As to the question of hemorrhage into the arterial wall, I am uncertain. I do not recall any instance in which I could be sure the primary episode that lead to an occlusion was a hemorrhage without a diseased arterial wall. Theoretically, of course, it could occur.

REPORT A COMPLICATION RESULTING FROM BLAST INJURIES IN WAR

A complication of war injuries which differs from those sustained in civilian life is reported in *The Journal of the American Medical Association* for February 27 by Lieut. Comdr. Walter D. Abbott, Lieut. (j. g.) Floyd O. Due and Lieut. (j. g.) William A. Nosik, M. C., United States Naval Reserve. Their report concerns what they term "subdural hematoma and effusion as a result of blast injuries." It involves the formation of a hematoma (a tumor containing blood) beneath the dura (the outermost of the three membranes that envelop the brain or spinal cord) or the effusion or escape of cerebrospinal fluid into the space.

"Subdural hematoma," the three navy physicians say, "is not an uncommon complication of craniocerebral trauma (injury to the skull and brain), usually the result of a direct blow to the skull, varying in degree and intensity. It has been shown that the hematoma occurs following the rupture of small veins, either between the layers of the dura or between the inner surface of the dura and the arachnoid (the center membrane). . . .

"We have observed a number of blast injuries sustained in action. They are the result of injury by a nearby exploding bomb on ship or land or may be the result of a concussion wave subsequent to a sinking ship or a depth bomb while the patient is in the water. . . .

"It is our opinion that in some instances in which there is no direct blow, a severe concussion from a bomb explosion at variable distance away, will lead to either a small subdural hemorrhage or a sudden rent in the arachnoid, permitting a temporary escape of the cerebrospinal fluid into the subdural space. . . .

"The patients present a history of exposure to severe concussion, loss of consciousness for a period varying from a few minutes to several days, persistent headaches, memory loss and irritability. It is seldom that many positive neurologic (nervous disease) signs are present, and what few are evident, are not pronounced. The most common findings are a slight facial palsy, a transient hemiparesis (paralysis affecting one side) and occasionally a transient change in reflexes. . . ."

The three men say that when such a condition is suspected an x-ray study of the brain should be made and if a hematoma or effusion is present a drainage operation should be performed to relieve the condition.

JEAN GABIN, the French actor, upon his arrival in New York, was asked how the French felt towards the British.

"We are both pro- and anti-British," he said. "Those who are pro-British say each night in their prayers: 'Please, God, let the gallant British win quickly.' Those who are anti-British say each night in their prayers: 'Please, God, let the dirty British win right away.'"

—*Tatler and Bystander.*

Mrs. Brown: "How children's tastes do change."

Mrs. White: "Yes, when my two were small, Johnny loved soldiers and Mary was crazy about brightly painted dolls. Now Mary is crazy about soldiers and Johnny runs after every painted doll he sees."

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

Lt. Chester V. Kiltz, former superintendent of the Martha Washington Hospital, Chicago, is one of the officers of a battalion cited by Maj. Gen. Alexander M. Patch for "Meritorious and conspicuous service during operations against the enemy."

The following members of the American College of Chest Physicians attended the Mid-Winter meeting of the Board of Regents at Chicago on February 14, 1943: Doctors Paul H. Holinger, Jerome R. Head, Richard Davison, Bert L. Dones of Dwight, Julius B. Novak, and Otto C. Schlack of Oak Forest.

According to the Chicago Daily News of March 20th, 1943 "A strange tale indicating that human sacrifices once were made by a sect inhabiting the Sangamon Valley area of Cass County back in 1822 when this section was a part of Morgan County is revealed in the writings of the late Dr. J. F. Snyder of Virginia. The narrative by Dr. Snyder has recently been discovered by Dr. Carl E. Black of Jacksonville who is preparing a biography of the Virginia physician.

McHenry County Medical Society held its Annual Election on December 17, 1942 at which time the following became officers for the year 1943: O. E. Nelson of Woodstock, President; W. F. Gooder of Marengo, Vice-President; L. M. Schuman of Woodstock, Secretary-Treasurer, and C. W. Klontz, McHenry, H. W. Sandeen, Woodstock and L. N. Seelye, Harvard as Censors.

Doctors of Southern Illinois have been extended invitations to attend courses in Defense sponsored by the Universities of St. Louis, Missouri in conjunction with defense organizations. The courses begin on Sunday, April 11th.

COMING MEETINGS

April 13 — Kankakee County Medical Society —Club Rooms, Kankakee, Noon — Frank F. Maple, "Obstetrics"

April 13 — Effngham County Medical Society —Benwood Hotel, Effingham, 6:30 P.M. — M. E. Rose, "Heart Disease"

April 13 — Rock Island County Medical Society —8:00 P.M.

April 15 — Marion County Medical Society

April 15 — Stephenson County Medical Society — Freeport, 6:30 P.M.

April 16 — Will-Grundy County Medical Society — Louis Joliet Hotel, Joliet, 12:00 noon — Arthur R. Colwell, "Diabetes"

April 21 — DuPage County Medical Society — Elmhurst Hospital, Elmhurst — Marcus H. Hobart, "Athletic Injuries and the War"

April 23 — Will-Grundy County Medical Society — Louis Joliet Hotel, Joliet, 12:00 noon — Fred M. Drennan, "Colitis"

MARRIAGES

John W. R. Thoma, Springfield, Ill., to Miss Kathleen Wiggin in St. Louis in February.

Henry M. Wilson Jr., Peoria, Ill., to Miss Eleanor Rain of Jerseyville, Ill., in St. Louis, January 30.

DEATHS

JOHN ANTHONY BADGLEY, Joliet; Rush Medical College, 1880. Retired from active practice. Died suddenly of a heart attack February 20, 1943, at the age of 88.

MAX E. BLOCH, Chicago; University of Illinois College of Physicians and Surgeons, 1900. Had practice in Chicago for over forty years. Died March 14, 1943 at the age of 69 years.

HUGHLING E. BOWERMAN, Leaf River; Bennett College of Eclectic Medicine and Surgery, 1897. Had been ill for three years. Died March 2, 1943 at the age of 69.

HERMAN A. BRENNECKE, Aurora; Rush Medical College, 1896. Founder of the Brennecke Clinic of Aurora and for 23 years medical director of Moosehart. Died March 20, 1943 at the age of 71.

GEORGE LEROY BROWN, Chicago; Chicago Homeopathic Medical College, 1899. Died in Passavant Hospital, February 28, 1943 at the age of 66.

WALTER MARION CATON, Mason City; Kansas City Medical College, 1901. Practiced medicine in Mason County nearly forty years. Died in his sleep February 16, 1943 at the age of 70.

EDMUND JANES DOERING, Chicago; Northwestern University Medical School, 1874. Colonel in Medical Corps, U. S. Army, 18 years. In 1911 he helped organize the army medical reserve corps in Chicago. During the first World War he served as head of the U. S. medical examining board. He was active in marine hospital work, and was one of the first physicians to develop color blindness tests for navy men. He was the oldest past-president of the Chicago Medical Society when he died March 1, 1943 at the age of 87.

CHARLES M. DOTY, Effingham; St. Louis College of Physicians & Surgeons, St. Louis, 1897. Former coroner of Effingham County. Died of pneumonia March 5, 1943 at the age of 74 years.

FREDERICK G. DYAS, LaGrange; Northwestern University Medical School, 1904. Was professor emeritus of the University of Illinois College of Medicine and a member of the International College of Surgeons. Member of the County Hospital staff for 30 years. Died March 3, 1943 at the age of 69.

WILLIAM MCINTIRE HARSHA, Chicago; Chicago Medical College, 1883. Was professor emeritus of clinical surgery at the University of Illinois College of Medicine and staff surgeon at St. Luke's Hospital. A founder of the American College of Surgeons and member of many medical societies; former president of the Chicago Surgical Society. Died in his home following a short illness on February 26, 1943 at the age of 88 years.

JOHN PRESTON HUFF, Carterville; St. Louis College of Physicians and Surgeons, St. Louis, 1909. Died in February, 1943 at the age of 63.

FLORA CORNELIA MOSS JACKSON, Peoria, Ill.; State University of Iowa College of Homeopathic Medicine, Iowa City, 1895; aged 80; died, January 2, of acute cardiac dilatation.

GEORGE BURT LAKE, Chicago and Highland Park; Rush Medical College, 1902. Lt. Col. in the medical corps in World War I and commanding office of Camp Grant Hospital. He saw army service as a captain in the Philippine insurrection and on the Mexican Border. Publisher of "Clinical Medicine" and president of the Chicago branch of the London Poetry Society. Died March 2, 1943 at the age of 63 years.

OTTO W. LEWKE, Chicago; Northwestern University Medical School, 1889. Member of the staff of the Norwegian American Hospital and once served as coroner's physician. Died March 8, 1943 at the age of 76 years.

HOMER M. LITTLE, East St. Louis; Marion-Sims College of Medicine, St. Louis, 1900. Studied at clinics and medical schools in Vienna in 1908 and 1909. At that time was secretary of the American Medical Association of Vienna. Had practiced in East St. Louis since 1900. Died March 14, 1943 at the age of 72.

WESLEY HAMILTON PECK, Highland Park; Columbia Medical College, New York, 1888. Had practiced medicine for 50 years. Was past president of the Chicago Ophthalmological Society. Had been in poor health for two years. Died February 26, 1943 at the age of 79.

MARTIN A. REICHMAN, Morrisonville; University of Illinois College of Medicine, 1929. Had practiced in Morrisonville for several years. Died February 28, 1943 at the age of 39 years.

CHARLES EDWARD TUCKER, Metropolis; St. Louis College of Physicians and Surgeons, 1892. Served in World War I in the field of X-ray. Examining physician for the Veterans Bureau for many years. Died February 20, 1943 at the age of 74 years.

ARTHUR EDWARD WALTERS, Springfield; St. Louis University School of Medicine, 1905. Specialized in practice of eye, ear, nose and throat. Active member of the Masonic order, Elks Lodge, American Association of Railway Surgeons and several medical societies. Died following a heart attack on March 1, 1943 at the age of 62 years.

BENJAMIN N. WATT, Washburn; Rush Medical College, 1884. Member of the Illinois State Medical Society "Fifty Year Club." Died March 10, 1943, at the age of 88.

CHARLES FRANCIS YERGER, Chicago; Northwestern University Medical School, 1905. At one time was chief surgeon at the Ear, Nose and Throat Illinois Charitable Eye and Ear Infirmary, and assistant professor of Medicine at Northwestern University. Was associate Clinical professor of Ophthalmology at Loyola University School of Medicine; on attending staff, Eye, Ear, Nose and Throat Department and attending surgeon of the Department of Ophthalmology at Cook County Hospital. Former attending physician of the Juvenile Court and the Juvenile Detention Home. Died March 16, 1943 at the age of 64 years.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.

Peoria, Ill.

SEASONABLE SONNETS

APRIL

The first of April comes with foolish jest,
Returning birds are singing in the breeze;
With trees in bloom are we right fearsome lest
They're blighted by a much belated freeze.
The housewife throws the home in disarray —
A manic cycle coming Spring and Fall —
The grimy handed lads at marbles play,
A million raving fans now greet baseball.
With sunshine bright that alternates with rain
The golfer stands between despair and hope;
Kites sail serenely over field and plain
Defeated politicians sulk and mope.
Events of varied sorts these Aprils bring
To joyously announce that it is Spring.

Professor Paresis petulently peruses the ponderous, preposterous, puerile piffle that presumptuos, pussillanimous, psychopathic present-day poets produce periodically with protrusive prodigality. He predicates that proponents, by protractive and purposeful promulgation, prevent philosophical perception, procreate profanation and presuppose Philistinism. He pleads punitive proscription proclaiming their poems pediculous.

With prudence, patience, perspicasity and passivity he promptly proceeds to provide a perverse populace with pertinent, provocative personal prattle by penning piquant pugnacious and perhaps pernicious paeans of petty peevishness:

I never get up early
Because I get up late;
I never rub hair tonic
Upon my old bald pate;
But there's one thing I hate, sir,
And yet it is my fate,
I have to wear suspenders
Because my girth is great.

I don't chew plug tobacco
For it runs down my chin,
And when I am rheumatic
I soak my feet in gin.
My auto's made of tin, sir,
And I am very thin,
So when we ride together
We make an awful din.

I do not purchase orchids
For sweeties that are mine,
They could not tell an orchid
From sweet potato vine;
They'd only loudly whine, sir,
And swear some and repine,
Because they have kyphosis
All up and down their spine.

I saw a purple heifer
Beside a bright green horse,
And each had pink tail feathers
Which filled them with remorse;
No oats or hay of course, sir,
And that I can endorse,
Remorse is quite sufficient
To fill a cow or horse.

I've never seen a pumpkin
All solid through and through,
And yet I've seen red whiskers
All gray from old mildew,
Devoutly in my pew, sir,
I pray for folks like you,
With chalk and water passion
And blood that flows like glue.

THE PERFUMED LADY

On Easter morn I went to church,
My spirit in elation,
But I was seated next a dame
Who wrecked the situation.

She used a pungent, vile perfume,
It seemed to be its mission,
To thwart my quest for peace and calm
And spoil my disposition.

For every time I got myself
Into a state reposeful,
She gave a wiggle or a squirm
And gave me quite a noseful.

Though not a kindly thing to say
I find myself assuming
That if she'd use a bit more soap
She'd need much less perfuming.

Sophistes the Seer saith, "By the time the average man hath lived long enough to acquire sound intelligence and good judgment all too often the world hath come to look upon him as senile and foolish."